EXHIBIT E

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       SUPREME COURT OF THE STATE OF NEW YORK
       COUNTY OF SUFFOLK: PART 48
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       IN RE: OPIOID LITIGATION
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                                 INDEX NO.: 400000/2017
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 8
                                 September 09, 2020
                                 Central Islip, New York
 9
10
                   MINUTES OF FRYE HEARING
                    (Testimony of Dr. Lembke)
11
12
       B E F O R E: HON. JERRY GARGUILO
                            Supreme Court Justice
13
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18		
19	* * *	
20	STEPHANIE CASAGRANDE, CSR, RPR	
21	OFFICIAL COURT REPORTER	
22		
23		
24		
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1	Frye Hearing - Dr. Lembke 3
2	THE CLERK: Supreme Court, State of New
3	York, County of Suffolk, Part 48 is now in
4	session, the Honorable Jerry Garguilo
5	presiding.
6	THE COURT: Good morning, everybody.
7	CHORUS: Good morning.
8	THE CLERK: The case on the calendar is
9	In Re Opioid Litigation, Index Number 400000
10	of 2017. Your appearances, please, beginning
11	with the Plaintiff.
12	MR. HANLY: Paul Hanly, for Suffolk
13	County.
14	MS. CONROY: Jayne Conroy, Suffolk
15	County.
16	THE COURT: Good morning.
17	MR. SHKOLNIK: Hunter Shkolnik, Nassau
18	County. Good morning, your Honor.
19	THE COURT: Good morning.
20	MS. SALDANA: Lois Saldana, for the New
21	York Attorney General's office.
22	THE COURT: Good morning.
23	MS. SALDANA: Good morning.
24	THE COURT: Anyone else?
25	MR. BADALA: Good morning, your Honor.

1	Frye Hearing - Dr. Lembke 4
2	Salvatore Badala, for the Plaintiff.
3	THE COURT: Good morning.
4	MR. ASHER: Good morning, Nate Asher,
5	for Janssen Defendants.
6	MR. SHERIDAN: Tom Sheridan, Suffolk
7	County.
8	THE COURT: Good morning.
9	My picture is on the screen. I could do
10	without it. All right. A couple of
11	announcements before we get started.
12	On Friday we're going to have an
13	abbreviated session. We have our annual 9/11
14	ceremony, which I will attend. They commence
15	at 3 p.m. on Friday, September 11th, so we'll
16	work somewhat into the lunch hour and recess
17	thereafter, because traditionally that
18	service takes about a little more than an
19	hour.
20	I received a letter. Apparently, the
21	Plaintiff is not going to call Dr. Keller as
22	an expert; is that correct?
23	MR. HANLY: That's correct, your Honor.
24	THE COURT: Okay. So our current
25	schedule will be today, of course,

5 1 Frye Hearing - Dr. Lembke 2 Dr. Lembke; tomorrow, Dr. Keyes; and on 3 Friday, during the abbreviated session, we'll start with Dr. James Tomarken. 4 5 Is everybody on board with that? MS. WELCH: Donna Welch, for the 6 7 Allergan Defendants. We are on board with 8 that, but we have sent a proposed Stipulation 9 to the Plaintiffs regarding the withdrawal of 10 Lacey Keller as an expert. 11 We want to make sure that she is being withdrawn for all purposes from their case in 12 13 chief. We want to ensure that they are not 14 taking her down from the Frye hearing with 15 any intent to have any other of their experts 16 adopt her opinion in whole or in part or rely 17 on her opinion in whole or in part in their 18 case in chief. 19 We assume that's the intent here, but we 20 want to make sure of that before we're 21 precluded from an opportunity to engage in a 22 Frye hearing on her opinions. 23 THE COURT: So, in other words, you want 24 to come to an agreement? 25 MS. WELCH: Correct, your Honor.

6 1 Frye Hearing - Dr. Lembke 2 THE COURT: The letter I received 3 indicates that they may call her as a 4 rebuttal witness, and in the event they 5 choose to do so, we would have a limited Frye 6 hearing. 7 Your issue deals with whether or not any 8 other expert tends to rely on that testimony? 9 MS. WELCH: Correct, your Honor. Our 10 concern is simply that on the current record, Plaintiffs have relied themselves on 11 12 Ms. Keller for purposes of summary judgment 13 briefing. If we are withdrawing her -- if 14 they are withdrawing her as an expert, we 15 don't think that's appropriate. 16 So we believe they shouldn't be able to 17 use her opinions in response to a renewed 18 summary judgment motion, and we want to make clear that their other experts in their case 19 20 in chief cannot simply rely on her opinions 21 that are being withdrawn, and they can't 22 adopt her opinions as their own. 23 THE COURT: You said that twice now. Work it out. If you can't work it out, I 24 25 will.

7 1 Frye Hearing - Dr. Lembke 2 MS. WELCH: Thank you, your Honor. 3 MS. CONROY: Thank you, your Honor. 4 THE COURT: Tech people, I'm hearing myself twice. It's like a network 5 five-second delay. Okay. Call a witness. 6 7 MS. STRONG: Your Honor, this is Sabrina 8 Strong, for Johnson & Johnson and Janssen. 9 Before we begin, I'd like to address one issue, your Honor. 10 THE COURT: Go ahead. 11 12 MS. STRONG: Yesterday you received a 13 letter that was filed by some of the 14 Defendants relating to a late disclosure of 15 materials related to Katherine Keyes. 16 After that, we actually received from 17 Plaintiffs' counsel yesterday, approximately 18 4:40 p.m., a late disclosed list of 19 supplemental materials for Dr. Lembke, who is 20 scheduled to testify, as you know, this 21 morning. 22 There is 239 documents identified on 23 that supplemental materials considered list that we received at 4:40 yesterday. I have 24 25 not even had an opportunity to review them,

8 1 Frye Hearing - Dr. Lembke 2 let alone determine whether we have access to 3 all those materials. 4 I understand they include materials from 1995, early 2000, materials that could have 5 been included and considered by her before 6 7 her deposition, before she submitted her 8 report. 9 We would ask, your Honor, that they not 10 be permitted to elicit any testimony or any 11 opinions that rely upon those materials or 12 address those materials in any way at the 13 hearing today, your Honor. This is classic 14 sandbagging. The discovery rules do not 15 permit for this, and so we would ask for that 16 relief, your Honor. 17 MR. HANLY: Your Honor, they've had 18 these materials since August the 3rd when they were disclosed in connection with the 19 20 West Virginia litigation. So the notion that 21 they're just seeing them for the first time 22 now is simply not true. 23 The second point is, of course, as your 24 Honor knows, an expert's work, an expert's 25 opinions are not static. They are dynamic,

9 1 Frye Hearing - Dr. Lembke 2 and they change over time, and many of these 3 materials were created subsequent to Dr. Lembke's deposition in this case. So we 4 5 really don't think that this is a serious 6 issue. MS. STRONG: Again, your Honor, I'm not 7 8 familiar with what has been disclosed in West 9 Virginia and what has not, but to get a list 10 of 239 documents at 4:50 the night before a 11 Frye examination is absolutely improper, your 12 Honor. 13 New York courts have plainly held that 14 the expert discovery rules are promulgated so 15 that no party will be sandbagged or 16 surprised, and that's plainly what this is. 17 And I do understand, your Honor, that 18 there are many documents. I don't know the 19 totality because, as I said, I haven't looked 20 at the 239 documents, but I understand that 21 there are many that predate her deposition, 22 long predate her deposition. 23 THE COURT: Okay. In the event during 24 the course of the examination if, in fact, 25 there is reference to a contested exhibit,

10 1 Frye Hearing - Dr. Lembke 2 note your objection and I'll rule on it at 3 the time. 4 Apparently, through the course of these 5 hearings, although hundreds of exhibits have been noted, very few have actually made their 6 way into the record. So stay on your toes. 7 MS. STRONG: All right. I will, your 8 9 Honor. I have to tell you it's hard to 10 discern that on the fly with over 700 11 initially identified by her and another 239, 12 so I'd like to have a standing objection at 13 that point, but we'll try to do our best in 14 that regard. 15 I don't know if Mr. Pyser or Mr. Carter 16 have additional points they would like to 17 make before we begin. 18 MR. PYSER: Briefly, your Honor. 19 is Steve Pyser, for Cardinal Health. 20 the idea that we are aware of these because 21 they were disclosed in the West Virginia 22 litigation, not all Defendants here are in 23 the West Virginia litigation, first of all. Second, there's an entirely different 24 25 expert report in the West Virginia

1	Frye Hearing - Dr. Lembke 11
2	litigation.
3	So if the idea is that we should expect
4	from this witness what she's testified in
5	West Virginia, that gets to the heart of the
6	problem, which is that she entered a report
7	in this case and should be testifying in line
8	with the report in this case, and because
9	there is a report in West Virginia that says
10	different things, that just can't be
11	bootstrapped into this case because there's a
12	materials considered list submitted at 4:39
13	p.m. the night before the Frye hearing.
14	That's just classic sandbagging, and
15	your Honor should strike it.
16	THE COURT: Okay. So noted. Call a
17	witness. I suggest you stay on your toes
18	also. In the event an exhibit is mentioned
19	that you have a problem with, raise your
20	objection at that point.
21	And, in any event, you'll have a
22	standing objection as we proceed.
23	MS. STRONG: Thank you, your Honor.
24	THE COURT: Call a witness, please.
25	MR. HANLY: Your Honor, the Plaintiffs

1	Frye Hearing - Dr. Lembke 12
2	call Dr. Anna Lembke, remotely.
3	THE COURT: Good morning, Doctor.
4	Doctor, can you hear me? Are you muted?
5	Your lips are moving, but I don't hear
6	anything.
7	DR. LEMBKE: Yes, I'm muted.
8	THE COURT: Swear the witness in,
9	please.
10	THE CLERK: Yes. Can you hear me?
11	DR. LEMBKE: Yes, I can.
12	THE CLERK: Please raise your right
13	hand.
14	(WHEREUPON, Dr. A-N-N-A L-E-M-B-K-E,
15	having first been duly sworn by the Clerk of
16	the Court, testified as follows:)
17	THE CLERK: Please state your name and
18	address for the record.
19	THE WITNESS: Anna Lembke, 401 Quarry
20	Road, Stanford, California, 94305.
21	THE CLERK: Thank you.
22	THE COURT: And, Dr. Lembke, good
23	morning again. I give all witnesses a few
24	pointers that can expedite these hearings.
25	Of course you're going to be asked some

13 1 Frye Hearing - Dr. Lembke 2 questions this morning, and I suggest that 3 you limit your answer to the information 4 sought by the question. 5 For example, if I were on the witness stand and I was asked on what street do I 6 7 live, I would simply volunteer the name of 8 the street. I wouldn't give the town, the 9 state or the ZIP code because that 10 information is not sought. 11 Number 2, although in life it is not 12 polite to commence an answer before a 13 question is complete, because we save time 14 that way; however, as you probably know 15 already, in court we require a complete 16 stenographic record of all the questions and 17 the answers. 18 So even though you know exactly where a 19 question is going, wait for the question to 20 be complete before you commence your answer. 21 And, number 3, in the event you hear the 22 word "objection" or anything that sounds like 23 "objection," just stop until you get 24 direction from the Court; fair enough? 25 THE WITNESS: Yes.

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14
 1
                     Frye Hearing - Dr. Lembke
 2
                   THE COURT: Got it. Good. You may
 3
              proceed.
 4
                   MR. HANLY: Thank you, your Honor.
 5
       DIRECT EXAMINATION
       BY MR. HANLY:
 6
 7
                  Good morning, Dr. Lembke.
              Q.
 8
                   Good morning.
              A
 9
                   It's early morning where you are; is
10
       that correct?
                   Yes, it is.
11
              A
12
              Q.
                   You are in your offices at Stanford
13
       University School of Medicine?
14
                   Yes.
              Α
15
                   Now, you and I have met before, correct?
              Q.
16
                   Yes.
              A
17
                   I presented you in court before Judge
18
       Polster some years ago in connection with the opioid
       litigation; do you recall that?
19
20
              A Yes, I do.
21
                   All right. Now, just as a road map for
22
       where we're gonna go, today we're going to be
23
       talking principally about methodology, and in order
24
       to start us off on what I hope is the right foot,
25
       we're going to put up on the screen the nine
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15 1 Frye Hearing - Dr. Lembke 2 opinions that you intend to testify to as and when 3 this case goes to trial, okay? 4 Yes. Α 5 Then thereafter, we'll go through your 6 qualifications, we'll go through the methodologies, 7 and hopefully this will all be over in a reasonable 8 period of time; fair enough? 9 Α Yes. 10 MR. HANLY: All right. Could we put up 11 Slide Number 1, please. 12 Q. Doctor, can you see Slide Number 1? 13 Yes. A 14 All right. And is this a list of the Ο. 15 nine opinions that you discuss in your report in 16 this case? 17 A Yes. 18 All right. And is there anything about this list which is substantively different from the 19 20 list of opinions in your report? 21 Α No. 22 Ο. All right. Just to go through them very 23 briefly, and I'm just going to paraphrase, your 24 Opinion Number 1 is going to be that addiction is a 25 chronic illness; Opinion Number 2 that opioid

16 1 Frye Hearing - Dr. Lembke 2 prescribing grows fourfold starting in the '90s, 3 which increased the supply of deadly opioids; Opinion Number 3 is that the opioid industry misled 4 doctors into believing that opioids are more 5 effective and safer than they really are. You then 6 7 give some examples there. 8 Opinion Number 4 is that there's no 9 reliable evidence that opioids work for what's 10 called chronic pain. 5 is the increased supply 11 contributed to more individuals becoming addicted to opioids; 6 is increased supply contributed to more 12 13 individuals, including newborns becoming dependent 14 on opioids. 15 Number 7, increased supply contributed 16 to more diversion of prescription opioids; Number 8, 17 the increased supply of opioids through legal and 18 illegal sources resulted in the opioid epidemic; and Opinion Number 9 is the opioid epidemic would not 19 20 have occurred without the pharmaceutical opioid industry's misleading promotion of opioids. 21 22 Did I read those correctly, paraphrasing 23 in part? Yes, you did. 24 25 Q. All right. And those are the, in sum

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17
 1
                      Frye Hearing - Dr. Lembke
 2
       and substance, those are identical to the opinions
       listed in your report; is that true?
 3
 4
                    Yes, that is true.
 5
                   Okay. You can take that slide down,
              Q.
 6
       please.
 7
                    Okay. Doctor, you are currently
 8
       Associate Professor and Chief of the Addiction
 9
       Medicine Dual Diagnosis Clinic. You are Medical
10
       Director of Addiction Medicine and Program Director
11
       of the Addiction Medicine Fellowship within the
12
       Department of Psychiatry and Behavioral Sciences at
13
       Stanford University School of Medicine; is that
14
       true?
15
              Α
                   Yes.
16
               Q.
                   Now, in that --
17
                    THE COURT: Mr. Hanly, I don't mean to
18
               interrupt you. I overlooked placing
19
               something on the record.
20
                   MR. HANLY: Yes, your Honor.
21
                    THE COURT: This applies to everybody
22
               here and anyone who may be listening through
23
               a live stream. That's the rules of the Chief
24
               Judge, Part 29, Section 29(1), the general
25
               taking of photographs, films, or videotapes,
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18 1 Frye Hearing - Dr. Lembke 2 or audiotaping, broadcasting or telecasting 3 in a courthouse, including any courtroom -and just for the record, the Court considers 4 the locations where this is being live 5 streamed to be part of our courtroom --6 7 office or hallway thereof, at any time or at 8 any occasion, whether or not the Court is in 9 session, is forbidden, unless permission of 10 the Chief Administrator of the courts or a 11 designee of the Chief Administrator is obtained. 12 13 So you may observe the proceedings, but 14 you may not record them, take photographic images, et cetera. Okay. Thank you. I'm 15 16 sorry, sir. 17 MR. HANLY: May I proceed, your Honor? 18 BY MR. HANLY: 19 Dr. Lembke, among your titles is the 20 Chief of Addiction Medicine within the Dual, dual as 21 in two, Diagnosis Clinic, true? 22 Α Yes. 23 And in that context, dual diagnosis 24 refers to a psychiatric condition on the one hand, 25 and a substance use disorder on the other, true?

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19
 1
                      Frye Hearing - Dr. Lembke
 2
                    That is true, yes.
 3
                   All right. Now, you've been on the
              Q.
 4
       faculty at Stanford University School of Medicine
 5
       since approximately 2003?
 6
                   Yes.
              Α
 7
                   All right. And in terms of your
              Q.
 8
       background, you did your undergraduate work at an
 9
       obscure university called Yale?
10
              Α
                   Yes.
11
                   And you did your medical degree at
12
       Stanford University, correct?
13
              Α
                   Yes.
14
                   You did a partial residency in pathology
15
       at Stanford, true?
16
              Α
                   Yes.
17
                   And following that, a full residency in
              Q.
       psychiatry at Stanford?
18
19
              A
                  Yes.
20
                   And following that, a fellowship in mood
21
       disorders within the Department of Psychiatry and
22
       Behavioral Sciences, true?
23
              Α
                   Yes.
24
                   You are licensed to practice medicine in
       the state of California --
25
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20
 1
                      Frye Hearing - Dr. Lembke
 2
              Α
                    Yes.
 3
                    -- since 1995?
               Q.
 4
              Α
                    Yes.
 5
                    You actually received a waiver from the
 6
       Drug Enforcement Administration to prescribe
       buprenorphine products, true?
 7
 8
              A
                   Yes.
 9
                    And what, what is the circumstance under
10
       which you would prescribe buprenorphine, and you do
       prescribe buprenorphine products?
11
12
                    I prescribe buprenorphine for patients
13
       who have opioid use disorder, a term for opioid
14
       addiction as well as for some patients with severe
15
       opioid dependence.
16
                    Buprenorphine is itself an opioid
               Q.
17
       product, true?
18
              Α
                    Yes, it is.
                    You're Board Certified, true?
19
               Q.
20
              A
                   Yes.
                    In psychiatry and neurology?
21
               Q.
22
               Α
                    Yes.
23
               Q.
                    And you are also Board Certified by the
24
       American Board of Addiction Medicine; is that true?
25
               Α
                    Yes.
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21 1 Frye Hearing - Dr. Lembke 2 And I'm sure Justice Garquilo knows what 3 Board Certified means, but essentially it means that 4 peers within the same area of work as you come 5 together and vote to give you or not give you a certificate demonstrating your expertise in the 6 7 particular area; is that a fair description? 8 Well, it's not really a vote by peers. 9 It's -- you have to complete additional training to 10 get expertise in a certain area. And then typically 11 you have to sit for and pass a board exam. 12 Q. Okay. But there is a board that 13 actually certifies, true? 14 Yes. Α 15 All right. Now, you teach medical 16 students at Stanford; isn't that right? 17 Α Yes. 18 Q. And you've been doing so for nearly 20 years? 19 20 That's correct. Α 21 And you've been recognized for your 22 excellence in teaching on two occasions; is that 23 true? 24 Α Yes. 25 Q. You also maintain an active clinical

22 1 Frye Hearing - Dr. Lembke 2 practice, true? 3 Α Yes. 4 And in your clinical practice, a Q. 5 significant portion of your students are -- sorry --6 of your patients are patients who have been taking 7 prescription opioids for pain relief and have 8 developed some sort of a use disorder; is that true? 9 A Yes. 10 And how many such patients would you say 11 you have treated in the last 20 years or so that you've been treating them? 12 13 Well, I haven't kept count, but it's 14 certainly scores of patients over many years. 15 Scores did you say? Q. 16 Yes. Α 17 All right. Now, we're going to hear a 18 bit about some terms that you are very familiar 19 with, but perhaps the Court and others are not. 20 Can you just briefly explain to the Court what is meant in the context of addiction 21 22 medicine by the term misuse? 23 In the context of addiction medicine, 24 misuse means taking a prescribed medication in a way 25 other than intended by the doctor who prescribed it.

23 1 Frye Hearing - Dr. Lembke 2 Okay. And how about --Q. 3 That's a very broad definition. Α That's all --4 Q. 5 A Not specific, but... 6 Thank you, Doctor. That's all I'm Q. 7 asking is a very broad and brief definition so we 8 can orient the Court in terms of your further 9 examination, okay? 10 Yes. Α And the term "dependence," what does 11 12 that mean in the context of addiction medicine? 13 That refers to patients specifically Α 14 with opioid dependence for first the patients who 15 have been taking opioids daily for long periods of 16 time who physiologically adapt to the presence of 17 the molecule such that if they reduce their dose or 18 stop it altogether, they experience opioid withdrawal. 19 20 And the term "addiction," how is that Q. term used in your field? 21 22 So addiction is a complex biopsychosocial disease that can broadly be defined 23 24 as the continued compulsive use of a substance 25 despite harm to self and/or others.

24 1 Frye Hearing - Dr. Lembke 2 And without getting too technical, is 3 there a relationship between that term addiction that you've just defined and something called opioid 4 5 use disorder, O-U-D? 6 Yes. So opioid use disorder is the 7 terminology used in the Diagnostic and Statistical 8 Manual of Mental Disorders in the latest edition, 9 and it's essentially synonymous with addiction. 10 Q. Now, in working with the patients in 11 your clinic, you develop treatment plans to deal with opioid use disorder, or addiction, or 12 13 dependence, or misuse? 14 Yes. Α 15 And those treatment plans can include 16 nonopioid medications, true? 17 Α Yes. 18 Q. Also nondrug plans of rehabilitation, if 19 you will? 20 Yes, correct. 21 Now, you also hold a position in the 22 Stanford Department of Anesthesiology and Pain 23 Medicine, true? 24 Yes. I have a courtesy appointment in 25 anesthesiology and pain medicine.

25 1 Frye Hearing - Dr. Lembke 2 And the courtesy appointment does, however, enable you to treat pain patients, correct? 3 4 Α Yes. 5 Now, over the years of your career, is there a body of scientific and medical literature 6 7 that you have studied to understand the relationship 8 among pain, dependence, and addiction? 9 A Yes. 10 And have you personally contributed to 11 that body of literature? 12 Yes, I have. 13 Q. Have you written peer -- what are called 14 peer-reviewed papers in that area? 15 Α Yes. 16 For the record, peer review refers to 17 the process by which an author submits her 18 manuscript to a particular scientific journal or 19 journals, and the journal then sends the paper to other experts in the field to determine whether the 20 21 paper is worthy of publication in that particular 22 journal. Is that a fair description of peer review? 23 Α Yes. 24 Now, in addition to peer-reviewed 25 papers, you've also written a book concerning

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26
 1
                     Frye Hearing - Dr. Lembke
 2
       opioids and addiction, true?
 3
              Α
                   Yes.
              Q.
 4
                   And I'm holding up -- can you actually
 5
       see me, Doctor?
 6
                   Yes, yes, I can.
 7
                   So I'm holding up rather awkwardly a
              Q.
       book that you have published called Drug Dealer M.D.
 8
 9
       That is your book, correct?
10
                   That's correct.
              Α
11
                  Okay. And this book was published in
              Ο.
12
       2016, true?
13
              A
                   Yes.
14
                   And 2016 was prior to the time that you
15
       first came to work with lawyers in connection with
16
       the opioid litigation, true?
17
              A
                   Yes.
18
                  Your book was published, for example,
19
       before you and I even met, true?
20
              Α
                   Yes.
21
                   Now, has this book received some
22
       positive press, if you will?
23
              Α
                   Yes.
24
                   And, in fact, the New York Times
25
       selected it as one of the top five books to read if
```

```
1
                                                             27
                      Frye Hearing - Dr. Lembke
 2
       you wish to understand the opioid epidemic and how
 3
       we got to where we are today, true?
                    Yes.
 4
               Α
 5
                    Now, you began to treat patients with
       substance abuse issues in the late 1990s, true?
 6
                    That's correct.
 7
 8
               Q.
                    And the substances that your patients
 9
       were abusing included prescription painkillers,
10
       true?
11
               Α
                   Yes.
12
                    Prescription benzodiazepines?
               Q.
13
                    Yes.
               A
14
                    Alcohol, true?
               Q.
15
               Α
                   Yes.
16
               Q.
                    Tobacco?
17
               Α
                    Yes.
                   Marijuana?
18
               Q.
19
               Α
                   Yes.
20
                    A panoply of addictive substances, true?
               Q.
                    That's correct.
21
               Α
22
               Q.
                    Now, had some of those patients that you
23
       treated received opioid prescriptions from their own
24
       doctors?
25
                 Yes, the majority.
```

28 1 Frye Hearing - Dr. Lembke 2 And they presented to you with some sort 3 of a substance use disorder; is that true? 4 That's right. Α Following the lawful prescription to 5 Q. them by their own physicians, true? 6 That's correct. 7 Α 8 Q. Did the book that you published include 9 any information about prescription opioid deaths 10 among New York Medicaid patients? Yes, it did. 11 Α 12 And do you recall what your research 13 showed about New York Medicaid patients who had been 14 prescribed opioids? 15 It showed that New York Medicaid 16 patients are more likely to be prescribed an opioid 17 than the non-Medicaid patients and more likely to 18 die of an opioid overdose. Now, is reading the medical literature, 19 Q. 20 a literature written by persons other than yourself, 21 is that a standard part of your practice as a doctor 22 and as a professor at Stanford University? Yes, it is. 23 Α 24 Why is that? Why is that a standard 25 methodology in your work?

29 1 Frye Hearing - Dr. Lembke 2 I need to read the medical literature to 3 stay up to date on the science, and to take good care of my patients, and also to teach medical 4 students, Stanford undergraduates and physicians in 5 training, residents and fellows. 6 7 Let me ask you about those students. Do Q. 8 you develop a curriculum for those students? 9 A Yes. 10 Is there any relationship between the 11 curriculum that you develop and the medical literature written by persons other than yourself? 12 13 My curriculum is formed by my review of 14 the best evidence in the medical literature. 15 All right. Now, in addition to the work 16 you've described thus far, were you ever appointed 17 to any panels within the state of California dealing 18 with opioid misuse? 19 Yes. I was appointed to the research 20 advisory panel of California by Governor Jerry 21 Brown. 22 Q. And what was the upshot of that panel? 23 Our role was mainly to assist the safety 24 of clinical trials being conducted in the State of California. 25

30 1 Frye Hearing - Dr. Lembke 2 Now, you used the term safety. That's a 3 term that we hear a lot of in the context of 4 prescription medications, true? 5 Α Yes. Safety and efficacy are two interrelated 6 concepts in the pharmaceutical world, true? 7 8 Α Yes. 9 And those are, those are two concepts 10 that the FDA pays particular attention to in respect 11 to prescription medications, true? 12 Α Yes. 13 Do safety and efficacy relate to 14 something called a risk-benefit profile? 15 Α Yes. 16 And just very briefly describe for 17 Justice Garquilo what that risk-benefit profile is 18 in the context of opioids. So with opioids, it's just essential to 19 20 assess whether or not the safety of the opioid in a 21 given patient is -- whether or not the benefits in 22 that patient outweigh any risks or unintended 23 adverse medical consequences. 24 0. Okay. Is it fair to say that safety and 25 efficacy are key concepts in the context of

31 1 Frye Hearing - Dr. Lembke 2 prescription medications? 3 Α Yes. 4 Q. And in the context of prescription opioid medications? 5 6 Α Yes. 7 Now, in reaching the conclusions that 8 are discussed throughout your book published in 9 2016, did you apply the same methodology in reaching 10 those conclusions that you use in your professional work as a scientific researcher and a medical 11 12 doctor? 13 Yes, I did. A 14 And let me ask you this: Are you 15 familiar with something known as a pharmaceutical 16 sales representative detailing? 17 I'm sorry. I didn't catch the last 18 word. 19 Ο. Are you familiar with something known as 20 pharmaceutical sales representative detailing? Yes, I am. 21 Α 22 All right. And is it fair to say that that's the circumstance where a pharmaceutical 23 24 company sales representative goes into a doctor's 25 offices or other healthcare providers offices and

32 1 Frye Hearing - Dr. Lembke 2 discusses, presents to the healthcare provider 3 purported information about particular drugs? Yes, that's correct. 4 5 Now, in writing your book, did you --Q. 6 did you have regard to any information concerning 7 sales representative representations about opioids 8 made to healthcare providers? 9 Yes. Α 10 You had access to materials in the 11 public domain concerning the kinds of statements and 12 documents that were being provided by sales 13 representatives, opioid sales representatives to 14 healthcare providers? 15 Α Yes. 16 These were documents that predated the Q. 17 documents you received from the lawyers in 18 connection with the various opioid litigations, 19 true? 20 Α Yes. 21 Okay. Now, since you were -- began to 22 do some work for the lawyers in the opioid 23 litigations, you were provided with internal company 24 documents concerning those promotional messages, 25 true?

33 1 Frye Hearing - Dr. Lembke 2 That is correct. Α 3 And you reviewed all of that material? 0. 4 Α Yes. 5 And did you reach conclusions concerning Q. the truth or falsity of those messages? 6 7 Yes, we did. 8 Q. In reaching those conclusions, did you 9 use the same methodology you have used historically 10 as a scientific researcher and a medical doctor in the sphere of addiction medicine? 11 12 Α Yes. 13 That methodology, that series of steps 14 didn't change in any way as between pre litigation, 15 for example, and the work you've done in the 16 litigation? 17 No, it did not change. 18 Okay. Now, have you undertaken any sort 19 of a program designed to correct any 20 misrepresentations that pharmaceutical sales 21 representatives made to healthcare providers in the 22 United States? 23 A Yes. 24 And do you call that program academic 25 detailing in contrast to pharmaceutical sales rep

34 1 Frye Hearing - Dr. Lembke 2 detailing? 3 Yes, I do. Α 4 And in the course of -- and the nature Q. 5 of that academic detailing program that you, that 6 you engage in, you actually go around the country 7 from time to time and provide lectures and other 8 support to healthcare providers to deal with the 9 potential misinformation they may have received from 10 the drug companies, true? 11 Α Yes. 12 And you've actually done this academic 13 detailing, among other places, right here in the 14 State of New York, true? 15 Α Yes. 16 And you've received thanks from the 17 various healthcare providers for presenting this 18 information correcting misinformation; is that 19 correct? 20 A Yes. 21 You've been invited to many different 22 conferences and speaking opportunities throughout 23 the United States to provide this academic 24 detailing, true? 25 A Yes.

1 35 Frye Hearing - Dr. Lembke 2 And do you continue to do that work Q. 3 today? Yes, I do. 4 Α 5 And how many such talks, presentations, 6 meetings would you say you've had since the 7 publication of your book in 2016? 8 I've had over 100 live speaking 9 engagements since the publication of my book in 10 2016. 11 Okay. I want to turn now to -- among 12 your peer-reviewed materials, you published a 13 research letter that looked at the patterns of 14 opioid prescribing under the federal Medicare 15 program, is that true? 16 Α Yes. 17 And what you want to look at was how 18 many scripts are being written for Medicare beneficiaries over any particular period of time, 19 20 correct? 21 Α That's correct. 22 And tell Justice Garguilo what your work 23 discovered concerning prescribing under the Medicare 24 program. 25 We found that over one-third of Medicare

36 1 Frye Hearing - Dr. Lembke 2 Part D patients is prescribed an opioid in any given 3 year. 4 In addition to what we've already Q. 5 discussed, have you provided any other public health service, such as consultation with any congressional 6 bodies or with the White House? 7 8 Α Yes. 9 Just very briefly, what did you do in 10 that context? I testified before lawmakers in 11 12 Washington regarding opioid safety and efficacy of 13 opioids. I've been to White House meetings convened 14 to address how to target and abate the opioid 15 epidemic. 16 I've talked with governors and other 17 lawmakers in states across the country regarding the 18 opioid problem. 19 0. Okay. Now I want to turn to discuss a 20 bit with you the methodology that underlies the 21 actual opinions in this case, okay? 22 Α Yes. 23 All right. Now, you already testified 0. 24 that in, that in writing your book, you used the 25 same series of steps, methodology that you use in

37 1 Frye Hearing - Dr. Lembke 2 your, in your scientific work and in your clinical 3 practice, correct? 4 Α Yes. 5 And in reaching the opinion which we saw 6 in Slide Number 1 of the nine opinions in this case, 7 you reviewed scientific and medical literature 8 concerning opioids papers that were written by folks 9 other than you, correct? 10 Yes. Α 11 And how many such papers in connection with this litigation -- and by this litigation I 12 13 mean not only this case but the other cases in which 14 you've been engaged -- would you say you looked at 15 concerning opioids? 16 I've reviewed over 600 papers regarding 17 opioids in the medical literature for this 18 litigation. 19 Q. Okay. Now, when you say you reviewed 20 the 600 or so papers, let me ask you, first of all, 21 all of these papers or virtually all of these 22 papers, they have at the front something that's 23 called an abstract, right? 24 Α Yes. 25 Q. And that's like a little summary of what

38 1 Frye Hearing - Dr. Lembke 2 the whole paper is gonna be about, correct? 3 Α Yes. 4 So in looking at the 600 papers, did you Q. just take a look at the abstract and move on? 5 6 No. My methodology is founded in 7 in-depth analysis of these papers in order to 8 determine whether or not the information in the 9 abstract summary is reflected in the rest of the 10 paper and supported by the data that the authors put 11 forth. 12 I'm also very careful to look at things 13 like any conflicts of interest that the authors may 14 have and also who funded the study. 15 Well, let me see if I understand this. Q. 16 Are you saying that the abstract which 17 summarizes the paper in some instances might not be 18 accurate as a summary? I'm saying that the abstract in my 19 20 research has shown that an abstract doesn't necessarily reflect the true state of the data that 21 22 the authors put forth, nor does it necessarily 23 reflect an appropriate summative conclusion derived 24 from the data which is relevant because most 25 healthcare providers, busy clinicians almost always

39 1 Frye Hearing - Dr. Lembke 2 -- I won't say almost always, but very often just 3 read the abstract. So do I gather from your answer, Doctor, 4 Q. 5 that in reviewing the 600 papers in connection with the opioid litigation, you actually read every page 6 7 of every study? 8 Α Yes. 9 So we have an example of what you just 10 testified to. Could we put up Slide Number 2, 11 please? 12 Doctor, can you see that slide? 13 Yes, I can. Α 14 Now, correct me if I'm wrong, this is a 15 part, a pullout, if you will, from a paper by a 16 Dr. Chou, C-H-O-U, that you reviewed as part of your 17 work in connection with this case, correct? 18 That's correct. It's by a large number 19 of authors. Dr. Chou is the first author. 20 Q. Correct. And so what we're seeing here 21 is we've pulled out the abstract, and you've 22 actually highlighted a part of the abstract that 23 reads, "Chronic opioid therapy can be an effective 24 therapy for carefully selected and monitored 25 patients with chronic non-cancer pain."

40 1 Frye Hearing - Dr. Lembke 2 Do you see that? 3 Α Yes. 4 And why did you highlight that as part Q. of your testimony here today? 5 6 I highlighted that because that 7 statement is not reflective of the evidence, and I 8 think it would be misleading for many readers if they only read the abstract. 9 10 Furthermore, the recommendations of the 11 authors are -- and I highlighted the strong 12 recommendation for the use of chronic opioid therapy 13 in the treatment of chronic non-cancer pain, which 14 they then briefly qualify with the words "low 15 quality evidence," which is strange that they would 16 have a strong recommendation for a treatment that 17 has low quality evidence. 18 Furthermore, reading more in depth, it becomes evident that the authors themselves know. 19 That the evidence is insufficient, the evidence for 20 21 the use of opioids in treatment of chronic 22 non-cancer pain is insufficient to assess the 23 effects on health outcomes which is that third box 24 pulled out below. 25 It's also worth mentioning that that low

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                     Frye Hearing - Dr. Lembke
 2
       quality information is in an appendix of the
 3
       article. So you really have to go digging for it.
 4
                   THE COURT: Excuse me. Doctor, who
 5
              prepares the abstract, the author or someone
              else?
 6
 7
                   THE WITNESS: The abstract is prepared
 8
              by the authors.
 9
                   THE COURT: Okay. Thank you.
10
       BY MR. HANLY:
11
              0.
                  And, Doctor, essentially what you are
       calling out is the inconsistency between the
12
13
       sentence in the abstract that says, "Chronic opioid
14
       therapy can be effective" and the sentence at the
15
       very bottom that says, "Evidence is insufficient to
16
       assess effects on health outcomes," true? That
17
       stuff --
18
                  Yes. Yes. And this is a pattern that
19
       repeats itself throughout the medical literature
20
       when looking at the data on opioids use for chronic
21
       pain.
22
              Ο.
                  Now, there's something else about this
23
       paper, is there not, that caught your attention?
24
       Could we have Slide Number 3, please?
25
                   And this is from the appendix. It's a
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                      Frye Hearing - Dr. Lembke
 2
       little hard to read, but this is the list of panel
 3
       members who participated in the promulgation of this
 4
       paper, true?
 5
                   Yes. So it is standards that all
       authors who publish in peer-reviewed journals must
 6
 7
       declare their financial conflicts of interest. And
 8
       what's notable here is that more than half of the
 9
       authors in this 2009 publication who strongly
10
       recommended the use of opioids in the treatment of
11
       chronic pain, despite weak and insufficient
12
       evidence, were, in fact, receiving financial fees,
13
       consultative fees from the opioid industry.
14
                  Okay. And, in fact, we see here under
15
       Dr. Perry Fine, he discloses that he serves on
16
       advisory boards for a number of different companies,
17
       including Johnson & Johnson, Purdue Pharma and Endo.
18
       Do you see that?
19
              Α
                   Yes.
20
                    THE COURT: Apparently -- correct me if
21
               I'm wrong -- Dr. Fine and Dr. Portnoy appear
22
               in the original, in the original Complaint --
23
                   MR. HANLY: Precisely, your Honor.
                   THE COURT: -- as Defendants.
24
                   MR. HANLY: As Defendants, that's
25
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43 1 Frye Hearing - Dr. Lembke 2 correct. 3 BY MR. HANLY: 4 Q. And as the Court already noted, we have Dr. Portnoy there in the box below, and Dr. Portnoy 5 discloses consulting agreements with an extensive 6 7 list of pharmaceutical companies estimated to work 8 with four to five within a three-year period, et 9 cetera, correct? 10 Α Yes. 11 And is this in-depth analysis of scientific literature published by folks other than 12 13 yourself, is that a standard method in order to 14 reach conclusions about, for example, the 15 effectiveness of opioids for chronic pain? 16 Yes. Α 17 And is that the methodology that you 18 followed as part of getting to your opinions in this case and your opinions in your pre litigation book? 19 20 Α Yes. 21 Now, in looking at these 600 papers that 22 you looked at -- I'm finished with that slide. 23 Thank you. 24 In selecting the papers to review, the 25 600 or so, did you exclude papers that contained

44 1 Frye Hearing - Dr. Lembke 2 views that disagreed with yours? 3 Α No. 4 Why did you include papers which Q. 5 disagreed with yours as part of your methodology? 6 Well, those are the papers that would be 7 important for me to look at even more closely to 8 understand how those authors came to conclusions 9 that seem to be going in a direction different from 10 the conclusions that I'm deriving from the evidence. All right. Now, did you review 11 12 something that's become known, become legendary, if 13 you will, in this litigation called the Porter and 14 Jick letter? 15 Α Yes. 16 MR. HANLY: Could we put up Slide Number 17 4, please? 18 BY MR. HANLY: 19 Ο. Now, Doctor, can you see that screen? 20 Yes, I can. 21 Q. This is the entirety of the Porter and 22 Jick paper, true? Yes. I wouldn't even call it a paper. 23 24 It's a letter to the editor. 25 Q. Right. It's an 11 line, five sentence

45 1 Frye Hearing - Dr. Lembke 2 letter to the editor from the New England Journal of 3 Medicine in 1980 that essentially was a review of 4 some 12,000 patient hospital charts to see whether in those charts the healthcare provider had noted 5 any signs of addiction to the narcotic drugs that 6 7 had been administered to those 12,000 patients, 8 correct? 9 Yes. A 10 This letter has been cited close to a 11 thousand times in the medical literature since 1980, 12 true? 13 Α Yes. 14 This letter was used by the 15 pharmaceutical opioid manufacturers to support the 16 idea that addiction in patients taking opioids was 17 extremely rare, true? 18 MS. STRONG: Objection, your Honor. 19 THE COURT: There's an objection. 20 What's the nature of the objection? 21 MS. STRONG: Your Honor, it's leading. 22 I know we're being very lenient with leading, 23 but when it comes to feeding the expert 24 substantive components of the opinion, I 25 would ask that they not lead, your Honor.

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                      Frye Hearing - Dr. Lembke
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                    THE COURT: I agree. Rephrase the
 3
              question.
 4
                   MR. HANLY: Sure thing.
 5
       BY MR. HANLY:
 6
              Q. Dr. Lembke, employing your usual
 7
       methodology for examining a scientific publication,
 8
       did you use that methodology in connection with this
 9
       letter to the editor?
10
                   Yes.
              Α
11
                   And can you tell the Court what history
       teaches happened after the publication of this
12
13
       letter?
14
                   Well, I think it's important to note,
15
       first, that in my review of the medical literature,
16
       I saw this article frequently cited. I also saw it
17
       cited in promotional material from the opioid
18
       industry.
19
                   But what's important to note about this
20
       data point is that it's a very low quality piece of
21
       evidence. It's not purely a peer-reviewed paper.
       It's a letter to the editor. It's not
22
23
       representative of the types of patients who are --
24
       have become dependent on and addicted to opioids in
25
       the United States today.
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47 1 Frye Hearing - Dr. Lembke 2 These are hospitalized patients, many of 3 who received a single dose of an opioid administered 4 by a healthcare provider. This is not a reliable piece of evidence to consider the risk of addiction 5 in ambulatory outpatients receiving opioids in large 6 7 quantities for long duration. 8 Nonetheless, this paper had a huge 9 influence on opioid prescribing and the healthcare 10 perspective on the safety of opioids in the 11 treatment of pain such that it contributed to an 12 increase in opioid prescribing. 13 MR. HANLY: Thank you, Doctor. You can 14 take that slide down now, please. 15 BY MR. HANLY: 16 Now, during the course of your work in 17 this case, Doctor, we've already established that 18 you looked at certain materials provided to you by the Plaintiffs' lawyers from the Defendants internal 19 20 files concerning statements about the safety and 21 efficacy of opioids, true? 22 Α Yes. 23 And did you, as part of your work in 24 this case, did you compare those documents, the 25 statements in those documents with the medical

48 1 Frye Hearing - Dr. Lembke 2 literature to see whether the statements made by the 3 manufacturers were consistent with the medical 4 literature? 5 Yes, I did. A And what did you, as part of your 6 7 methodology, what did you discover? 8 I discovered that there were many 9 inconsistencies in terms of what the promotional 10 material was saying about the safety and efficacy 11 and what the evidence was saying about safety and 12 efficacy. 13 Now, in addition to your review of the Q. 14 published medical literature by doctors other than 15 yourself, did you -- in forming your opinions in 16 this case, did you rely on your clinical experience 17 treating patients with pain and substance use issues? 18 19 Α Yes. 20 And can you just briefly explain how 21 your personal professional experience figured into 22 the methodology that underlies the opinions you give 23 -- you intend to give, with the Court's permission, 24 in this case? 25 So I observed thousands of patients over

49 1 Frye Hearing - Dr. Lembke 2 the past 20 years becoming addicted to prescription 3 opioids, and I went to the medical literature to see 4 whether or not there was evidence to support my 5 clinical experience, whether my clinical experience 6 was not based in evidence. And when my clinical 7 experience seemed to be divergent from the evidence, 8 I tried to figure out what I might be missing in 9 terms of my clinical impression. 10 So the medical science was very 11 important, touchstone in terms of evaluating my 12 clinical experience. 13 Okay. You used the term evidence a Q. 14 couple of times in your answer and his Honor, I 15 believe, has heard of the concept of evidence-based 16 medicine. Is that a concept you're familiar with? 17 Yes, it is. A 18 And, very briefly, what does that 19 concept connote? 20 Evidence-based medicine speaks to the 21 idea that when we ground medical practice in science 22 we will have better medical care. So it's important 23 to, you know, clinical experience is important, but 24 it's important to reflect on our clinical experience

in the context of the scientific evidence.

25

50 1 Frye Hearing - Dr. Lembke 2 And do you, as part of your methodology 3 in this case, did you -- did you employ evidence-based medicine? 4 5 A Yes. Now, let me ask you, in applying your 6 7 methodology to reach your opinions in this case, did 8 you determine whether you were able to state those 9 opinions to a reasonable degree of scientific and medical certainty? 10 11 Α Yes. 12 Q. And are you? 13 A Yes. 14 Now, let's talk about some basic terms. 15 Then we'll go through this section quickly, but just 16 so that we have for the record, let's start with the 17 basics. Just tell the Court very briefly what 18 opioids are. So opioids are molecules that bind to 19 20 opioid receptors in the brain, and they have very powerful effects. They can relieve pain in the 21 22 short-term. 23 They also stimulate a part of the brain called the dopamine reward pathway, which is why 24 25 they are highly addictive. And they also work on a

51 1 Frye Hearing - Dr. Lembke 2 part of the brain called the brain stem which 3 controls the breathing rate, and they can slow --4 powerfully slow down the breathing rate and the heart rate, which is why they're very, very lethal 5 and why people overdose and die from them. 6 7 All right. Now, the first opinion of Q. your nine opinions on the list relates to addiction 8 9 to opioids, correct? 10 Yes. Α 11 And you state in that opinion that addiction, addiction is a chronic illness. So 12 13 staying with the basics, there are accepted 14 definitions of addiction within the area of 15 addiction medicine, true? 16 Yes. A 17 MR. HANLY: All right. Can we put up 18 Slide Number 5, please? 19 BY MR. HANLY: 20 And while we're doing that, I will ask Q. 21 the Doctor, is there a body called the American 22 Society of Addiction Medicine? 23 Α Yes. 24 And is that a body that you are in some 25 fashion a member of?

52 1 Frye Hearing - Dr. Lembke 2 Α Yes. 3 And that's a body that is interested in Q. 4 issues surrounding addiction, true? Yes. It's a professional medical 5 6 society for healthcare providers who treat and research addiction. 7 8 Q. Okay. And the American Society of 9 Addiction Medicine came up with this definition of 10 addiction which reads: Addiction is a treatable, chronic medical disease involving complex 11 12 interactions, paraphrasing, and an individual's life 13 experiences. 14 People with addiction use substances --15 or -- use substances. People with addiction use 16 substances or engage in behaviors that become 17 compulsive and often continue despite harmful 18 consequences. Prevention efforts and treatment 19 approaches for addiction are generally as successful 20 as those for other chronic diseases. 21 22 Did I read that correctly? 23 Α Yes. 24 Okay. And is this definition by the 25 American Society of Addiction Medicine, is that some

53 1 Frye Hearing - Dr. Lembke sort of an outlier? 2 3 No. That's a well-accepted definition of addiction medicine, addiction in the field. 4 5 All right. It's regarded as a -- strike Q. 6 that. 7 Did this definition, promulgated by this 8 Society of Addiction Medicine, result from some sort 9 of a consensus of experts in the field? 10 Α Yes. 11 MR. HANLY: Thank you. I'm finished with that. 12 13 BY MR. HANLY: 14 Q. Now, there's -- just anticipating 15 potential questions from the esteemed lawyers for 16 the drug companies, there's another organization 17 called the American Psychiatric Association, which 18 has a slightly different definition of addiction, 19 true? 20 Yes. You're speaking of the Diagnostic and Statistical Manual of Mental Disorders? 21 22 0. Yes, what's called the DSM. And the DSM, which is a publication of 23 24 the American Psychiatric Association, it uses the 25 term -- instead of addiction, it uses the term

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                     Frye Hearing - Dr. Lembke
 2
       opioid use disorder, true?
 3
              Α
                   Yes.
 4
                   The Judge has heard that from prior
              Q.
       testimony, sometimes called OUD, true?
 5
 6
                   Yes. I don't know what the Judge has
 7
       heard before, but, yes.
 8
              Q.
                   Okay. If you accept that, I think we'll
 9
       be okay.
                   Now, is there, based on your review of
10
11
       the medical literature concerning addiction and your
       20 years or so --
12
13
                   I'm sorry, I can't hear you when you
14
       walk away from the microphone. I'm sorry.
15
                   I'm sorry. Based upon your experience
16
       as a scientist and a doctor engaged in these -- the
17
       area of addiction medicine, is there any real
       difference between the definitions of addiction that
18
       the American Society came out with and the
19
20
       definition of opioid use disorder that the American
21
       Psychiatric Association has adopted?
22
                   No. In essence, they're saying the same
23
       thing.
24
              Ο.
                  Okay. Now, in your Opinion Number 2 in
25
       this case, which is part of Slide Number 1, but we
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55 1 Frye Hearing - Dr. Lembke 2 don't need to put it up, you state: Opioid 3 prescribing grows fourfold starting in the 1990s, which increased the supply of potent and deadly 4 opioids, et cetera, including in New York, correct? 5 6 Α Yes. 7 And elsewhere you've written of what you Q. 8 call a paradigm shift in the prescribing by doctors of opioids beginning in the 1990s, true? 9 10 Α Yes. 11 So what happened in the 1990s that was 12 different from what happened over the decades prior 13 to the 1990s in connection with physicians' 14 prescribing habits for opioids? 15 Yes, so this was a shift that really 16 began in the 1980s with the advent of the hospice 17 movement and then really gained momentum in the 18 1990s, but the shift was essentially the following: Prior to 1980 doctors were very 19 20 reluctant to prescribe opioids for their patients 21 because they were concerned that their patients 22 would get addicted. 23 This was based on historical prior 24 doctor-caused opioid epidemic back -- dating back at 25 least to the Civil War, early 1900s. But in the

56 1 Frye Hearing - Dr. Lembke 2 1990s there was a huge change in the way that 3 doctors were trained to regard opioids. 4 They were taught that opioids -- that 5 the risk of addiction to opioids are -- is very, very small as long as the opioids are being 6 7 prescribed by a doctor for a patient with real pain 8 and real disease, that somehow that prescription pad 9 could confer some kind of halo effect, and the fact 10 that the patient had serious pain would protect them from addiction. 11 12 Doctors were also taught that opioids 13 are effective treatment for chronic pain and that 14 you can continue to go up on the dose without 15 endangering a patient. So these were huge changes 16 in the way that opioids came to be used, and the 17 treatment really began in medical school. 18 I went to medical school in the 1990s, and I was the recipient of this training. 19 20 And what you just described, Doctor, is Q. there any historical evidence to support what you 21 22 just said, for example, in the literature? 23 Yes. So there are studies, 24 peer-reviewed literature showing that the risk of 25 addiction is quite common, even among patients who

57 1 Frye Hearing - Dr. Lembke 2 are prescribed opioids by a doctor for pain. And 3 those data points predate this paradigm shift that occurred in the 1990s. 4 5 So the bottom line is we, as a healthcare institution, knew that this risk was 6 7 there, and then we collectively forgot it for about 8 two or three decades. 9 Q. Your Opinion Number 2 that we've been 10 talking about, this increase of prescribing, 11 fourfold increase, four times what had been prescribed earlier, is there, is there any consensus 12 13 in the areas of addiction medicine as to whether 14 this increase resulted in any increase in 15 unfavorable outcomes for the patients? 16 THE COURT: Just yes or no. Just yes or 17 no, Doctor. 18 THE WITNESS: Yes. 19 MR. HANLY: All right. And could we put up Slide Number 6? 20 BY MR. HANLY: 21 22 And let me ask you, Doctor, is there, is 23 there data from the Centers for Disease Control concerning the increase of prescriptions along with 24 25 potentially adverse events?

58 1 Frye Hearing - Dr. Lembke 2 Α Yes. 3 And please describe for Justice Garquilo 4 what is, what is shown here in this, in this graph 5 with the three lines going from left to right. 6 This graph shows that as the sales of 7 prescription opioids increased between 1999 and 8 2010, so did opioid-related overdose deaths as well 9 as the number of people presenting to addiction 10 treatment centers with opioid addiction. 11 Okay. So, just for the record, the Ο. green line, which is at the top, reflects sales; is 12 13 that correct? 14 Yes. A 15 Of prescription opioids, yes? 16 Yes. Yes, it does. Α 17 And the middle line is showing overdose Q. 18 deaths; is that right, Doctor? 19 Yes, that's correct. 20 And the bottom line, the orange line is showing treatment admissions for folks suffering 21 22 from opioid use disorder, true? 23 Α True. Okay. Now -- and this, is this CDC data 24 Ο. 25 generally accepted by folks in the addiction

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                      Frye Hearing - Dr. Lembke
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       medicine area as being reliable?
 3
              Α
                   Yes.
                    Did you -- did you use this as part of
 4
              Q.
 5
       your methodology in reaching your Opinion Number 2
       in this case?
 6
 7
              Α
                   Yes.
 8
                    Okay. Now, did this phenomenon of the
 9
       fourfold -- you can take that down slide down,
10
       please.
11
                    Did this phenomenon that you've
12
       described as a fourfold increase in prescriptions,
13
       did this happen also in the State of New York?
14
                    Yes, it did.
15
                    MR. HANLY: Could we have Slide Number
16
               7, please?
17
       BY MR. HANLY:
18
               Ο.
                   Now Slide Number 7 is titled, Amount of
       Opioids Prescribed in State of New York between 1997
19
20
       and 2016, almost a 20-year period, true?
21
              A
                   Yes.
22
                    And I'm sure Justice Garguilo -- I hope
23
       Justice Garguilo can see this, but just explain,
24
       very briefly, what do we see here?
25
                    Well, what we see here is that in 1997,
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60 1 Frye Hearing - Dr. Lembke 2 100 morphine milligram equivalent was prescribed per 3 person in the State of New York, and between 1997 4 and 2016 that increased almost fivefold. 5 MR. HANLY: Okay. Thank you. You can take that slide down. 6 7 BY MR. HANLY: 8 Q. Now, Doctor, I want to talk a little bit 9 briefly, I hope, about the methodology and the bases 10 for your Opinion Number 3 in this case, which is 11 that the opioid industry misled doctors into 12 believing that opioids are more effective, et 13 cetera, okay? 14 Α Yes. 15 And I noticed that part of the subtitle 16 of your book, Drug Dealer M.D., is how doctors were 17 duped, correct? 18 Α Yes. And can you explain to the Court what 19 Q. 20 you meant by that, that the doctors were duped? 21 The doctors were duped by the 22 pharmaceutical opioid industry into believing that 23 opioids are safer than they really are and more effective than they really are. 24 25 Q. Okay. And in the book you talk about --

61 1 Frye Hearing - Dr. Lembke 2 MR. PYSER: Your Honor, this is Steven 3 Pyser for Cardinal Health. I'm just going to 4 register an objection and apologies for the late objection. 5 Vague on the question, the meaning of 6 7 what the pharmaceutical opioid industry is 8 here. That's not a term that really has a 9 definition, and as distributors, we don't 10 believe that to be a part of anything. 11 I think the testimony needs to be more 12 specific. 13 THE COURT: I think the doctor is 14 basically testifying to her findings and 15 impressions, of course, subject to your 16 cross-examination. Am I missing the point of 17 your objection? If I am, tell me. 18 MR. PYSER: Yeah, just, your Honor, that 19 the term is vaque. What this pharmaceutical 20 opioid industry is is not defined, and it's 21 being used in a way that is very unclear 22 through the testimony. 23 THE COURT: Mr. Hanly, develop that 24 record. 25 MR. HANLY: I can rephrase, your Honor.

62 1 Frye Hearing - Dr. Lembke 2 THE COURT: Rephrase it. 3 BY MR. HANLY: Doctor, in your book you discuss the 4 Q. 5 alleged fact that certain companies engaged in the 6 manufacture of opioids created a false narrative. Is that fair? 7 8 A Yes. 9 Okay. And you -- and you've already 10 explained what you meant by that part of the 11 subtitle that says that the doctors were duped, 12 okay? 13 A Yes. 14 Okay. Now, in your book you talk about 15 certain myths that certain opioid-related companies 16 promulgated, correct? 17 Α Yes. 18 MR. HANLY: Okay. And let's take a look at an example of a piece of marketing 19 20 material that, that we have as Slide Number Could we put up Slide Number 8, please? 21 BY MR. HANLY: 22 23 0. Doctor, Slide Number 8 is actually a 24 page within a marketing brochure that was 25 distributed under the auspices of something called

63 1 Frye Hearing - Dr. Lembke 2 the American Academy of Pain Medicine. Do I have 3 that organization correct? 4 Yes. That was not the only organization Α that was involved, but yes. 5 6 Okay. This also was a piece of 7 marketing material that was used and disseminated by 8 a company called Janssen; is that correct? 9 Yes. This was promoted as an 10 educational booklet. 11 Q. Okay. And so this is the authors of 12 this piece saying that, Number 1, it is a myth that 13 opioid medications are always addictive and that the 14 true fact, appearing right there, is that many 15 studies show that opioids are rarely -- and they 16 emphasize the word rarely -- addictive when used 17 properly for the management of chronic pain, 18 correct? 19 Yes, that's correct. That's what it 20 says. 21 Q. Right. And as part of your opinions in 22 this case, you came to the conclusion that that so-called fact is, in fact, a falsehood? 23 24 Α Yes. 25 Q. And explain why it's false.

Frye Hearing - Dr. Lembke

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2 Their use of the term rarely addictive 3 is not based on science. What we see is that 4 between 10 percent and 30 percent of patients prescribed an opioid by a doctor for chronic pain 5 will develop some kind of opioid use disorder. 6 7 Okay. Q. 8 And, furthermore, this was known prior 9 to the publication of this so-called educational 10 pamphlet. 11 Okay. And the second myth that the Ο. certain companies engaged in opioid manufacture said 12 13 was, in fact, a myth is that opioids make it harder 14 to function normally, and what the pamphlet says is, 15 no, that's not correct. When used correctly for 16 appropriate conditions, opioids may make it easier 17 for people to live normally. That's what the answer 18 is supposed to be, right? 19 Α Yes. 20 Q. And is that answer based upon the use of 21 your methodology reviewing 600 articles and your 22 20-odd years of clinical practice, is that a true 23 statement? 24 Α No. 25 Q. Okay. And then the last so-called myth

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                      Frye Hearing - Dr. Lembke
 2
       that the certain of these companies supported is
       that opioid doses have to get bigger over time
 3
 4
       because the body gets used to them, and they say,
       well, that's not true. The true fact is that unless
 5
       the underlying cause of your pain gets worse, such
 6
 7
       as with cancer or arthritis, you will probably
       remain on the same dose or need only small increases
 8
 9
       over time.
10
                    Is that alleged fact true or false based
11
       upon your methodology in this case?
12
                    That is false.
              Α
                    MR. HANLY: Now -- your Honor, did you
13
14
              want to take a break at this point?
15
                    THE COURT: Talk to my stenographer,
16
              when her fingers get tired.
17
                   MR. HANLY: I'm flying along.
18
                    THE COURT: As a matter of fact, she's
19
              getting a note right now from me telling me
20
               to give me a heads-up when she needs a break.
21
                    MR. HANLY: Okay. I just want to make
22
               sure I'm doing what the Court wants.
23
       BY MR. HANLY:
24
                   All right. Now, Doctor, we actually
25
       created a slide that contains Dr. Lembke's myths
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66 1 Frye Hearing - Dr. Lembke 2 about opioids, true? 3 Α Yes. 4 MR. HANLY: Could we have Slide Number 5 9, please? BY MR. HANLY: 6 7 And what you created here is, in part, Q. 8 contradicts what we just saw from certain 9 opioid-related companies, correct? 10 Α Yes. 11 And we've already gone over this, but 12 very quickly, you say that it's a myth that the risk 13 of addiction is rare. You say it's a myth that 14 opioids are effective in treating chronic pain. You 15 say it's a myth that no dose is too high. And you 16 say it's a myth of a concept called pseudoaddiction 17 which, am I correct, is the notion that if you're 18 craving more of the drug, you may not -- that may 19 not be addiction at all but simply your body crying out for pain relief; is that correct? 20 21 Yes. I think pseudoaddiction means that 22 if you're manifesting many of the signs and symptoms of addiction, you're not really addicted, you're in 23 24 pain and the solution is to give more opioids. 25 Q. Okay. And we've already established

67 1 Frye Hearing - Dr. Lembke 2 what you did in terms of your methodology with 3 respect to Myth Number 1, that becoming addictive --4 addicted is rare. 5 With respect to Myth Number 2, that 6 opioids are effective in treating chronic pain, just 7 very briefly, was the methodology any different that 8 you employed? 9 A No. 10 And how about with respect to your claim 11 here that it's a myth that no dose is too high, did 12 you employ that same methodology? 13 Α Yes. 14 Did you look at -- did you look at 15 scientific papers published by people other than 16 you? 17 A Yes. 18 Okay. And the same with respect to Myth 19 Number 4, any difference in the methodology that you 20 used? 21 Α No. 22 Basically two components of your 23 methodology; is that correct, your review, in-depth 24 review of the substantial body of medical literature 25 taken together with your, what I'll call your

68 1 Frye Hearing - Dr. Lembke 2 personal professional experience, meaning your 3 clinical practice and your interaction with other healthcare providers; is that fair? 4 5 A Yes. Now, let's, let's look at Slide Number 6 7 10, please, and tell Justice Garguilo, this is 8 headed, Prescription Opioids are as Addictive as Heroin. That's rather a strong statement, isn't it, 9 10 Doctor? 11 Yes, it is. 12 And tell Justice Garguilo what we've 13 done here. We've pulled out these two, two 14 quotations, quotations from a medical paper by an 15 author named Harbaugh that appeared in the Journal 16 of Pediatrics in 2018. So what is the point of this 17 -- these quotes? 18 There is consensus in the medical 19 profession that heroin is -- that prescription 20 opioids, Schedule II prescription opioids are as addictive as heroin, that there's really no 21 22 difference between heroin and prescribed opioids for 23 pain. 24 By the way, is the Journal of Pediatrics 25 based on your work in researching medical journals,

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                      Frye Hearing - Dr. Lembke
 2
       is that a peer-reviewed journal?
 3
                   Yes, it is.
              Α
 4
              Q.
                    Does it have -- is it regarded as
 5
       reputable?
 6
                    Yes, it is.
 7
                    Now, let's next look at Slide Number 11,
 8
       which relates to your Opinion Number 4, and this,
 9
       this is Opinion Number 4, the heading, There is no
10
       reliable evidence that opioids work for chronic
11
       pain. And in reaching that conclusion, what did you
12
       do?
13
                    I reviewed many, many articles, clinical
14
       trials, observational studies, epidemiologic studies
15
       looking at whether or not long-term opioid therapy
16
       is effective in the treatment of chronic pain.
17
              Q.
                   And is this an article that you looked
18
       at?
19
              Α
                    Yes.
20
                    Is -- and the journal is called Pain?
              Q.
21
              A
                    Yes.
22
              Q.
                    Is that a peer-reviewed paper?
23
              A
                   Yes.
24
                    Is it the only paper that you relied
25
       upon in reaching your conclusion that there's no
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 1
                      Frye Hearing - Dr. Lembke
 2
       reliable evidence that opioids work for chronic
 3
       pain?
 4
              Α
                    No.
 5
                    MR. HANLY: Okay. Sorry, your Honor.
               just lost my track.
 6
 7
                    Could we put up Slide Number 12, please?
 8
                    MS. STRONG: Your Honor, objection.
 9
               This is Sabrina Strong for Johnson & Johnson.
10
               This is one of those documents, it appears,
11
               your Honor, where they're relying upon
               something that was submitted to us for the
12
13
               first time yesterday at 4:40 p.m. from their
14
               supplemental material considered list, and we
15
               would object to any questions relating to
16
               this document on this slide on that basis,
17
               your Honor.
18
                    THE COURT: Mr. Hanly.
19
                    MR. HANLY: Again, your Honor,
20
               Ms. Strong is a leading member of the
21
               national defense team, and in that capacity,
22
               she would have had access to the supplemental
23
               materials provided on August the 3rd in
24
               connection with the West Virginia cases.
25
                    THE COURT: Ms. Strong, early on, did
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71 1 Frye Hearing - Dr. Lembke 2 the Court not rule or direct an importation 3 of all of the information -- I'll call it information -- all of the discovery that was 4 handed over and exchanged in the MDL handled 5 by Judge Polster to this Court, and if so, 6 7 was this thing, this piece of paper, this 8 document, a part of that exchange. 9 MS. STRONG: My understanding, your 10 Honor, is that he is referencing the West 11 Virginia case, not the MDL. I don't believe 12 we're in the case to which he is referring, 13 but, again, I want to double-check that, but that's my understanding, your Honor. 14 15 So, no, I don't believe he's talking 16 about materials that were produced in the 17 MDL. 18 MR. PYSER: Your Honor, this is Steven 19 Pyser, Cardinal Health. I am in the West 20 Virginia case. That's why I raised it earlier as well. If I'm understanding 21 22 Mr. Hanly correctly, what he's referring to, that is not the case before Judge Polster. 23 24 And as well, incorporating discovery into the 25 record does not mean that an expert relied on

72 1 Frye Hearing - Dr. Lembke 2 it. 3 We have a report in this case in New York in which this document is not mentioned. 4 If it was mentioned in another case in 5 another opinion that takes different 6 7 positions, I do not believe that the witness 8 for the state can just incorporate every 9 report that Dr. Lembke has ever written, 10 including reports against Defendants --11 excuse me -- including reports in cases in 12 which some Defendants aren't even a part of. 13 So we also object to the inclusion of this 14 document. 15 THE COURT: I have a couple of points 16 I'd suggest. You all entered into a 17 Stipulation in connection with these 18 hearings, part and parcel of that Stipulation 19 was that any information, any documents that 20 made their way into evidence in this case to 21 which a party objects, that objection is 22 preserved in the event of a trial. 23 The second point -- Mr. Hanly, this is 24 directed to you. This Court made it -- and, 25 by the way, it's directed to all counsel.

73 1 Frye Hearing - Dr. Lembke 2 This Court, in the last go around, referenced 3 a case, Guerra, G-U-E-R-R-A, versus D-I-T-T-A, 220 New York Slip Opinion 03771, a 4 5 Second Department case that just came down in July of this year, and I believe -- I don't 6 7 believe I know that the Court suggested, 8 certainly the last session, perhaps the 9 session before that, that in connection with 10 these hearings, the Court was focusing in on 11 two very specific areas, whether or not the 12 methodology can meet the requirements it of 13 general acceptance, and whether or not if the methodology is appropriately applied, the 14 15 results can be deemed reliable. 16 Of course, as noted in the Ditta case, 17 that the actual question, the actual issue of 18 whether or not the opinion will ever make it's way to the finder of fact at trial 19 20 relies upon the foundation that is laid by 21 the person offering the evidence or the lack 22 of foundation by the person or the entities 23 or the lawyers opposing it. 24 We're going a long way, we have been going a long way in both the direct 25

74 1 Frye Hearing - Dr. Lembke 2 examination and the cross examination, and 3 away from those two very, very basic 4 precepts, general acceptance and reliability. The doctor is, of course, permitted to 5 6 -- all witnesses are permitted to, as a 7 matter of fact, they're required to set forth their methodology, and the inference that the 8 9 person offering the evidence seeks to gain 10 from the Court, it's okay, it's generally 11 accepted methodology, and whether or not the 12 testimony indicates that the appropriate use 13 of the methodology will result in a reliable 14 conclusion, period. 15 That's the step one in what I call the 16 "Fryebert" analysis. Step 2 will await, if 17 need be, a trial. So here's my point -- by 18 the way, Mr. Hanly, I ask this to everybody. 19 The Court, of course, has had an 20 opportunity to review the decisions in the 21 MDL concerning this witness, and it broke 22 down to essentially two areas, a marketing 23 causation and a gateway argument or 24 suggestion. 25 Are we beyond that in this case, meaning

75 1 Frye Hearing - Dr. Lembke 2 is there something beyond those two general 3 areas that you seek to elicit from this witness? I mean, I know I have nine points, 4 but do the nine points fit within that 5 framework that Judge Polster --6 7 MR. HANLY: I think it's slightly 8 broader at least than what your Honor just 9 articulated, because Dr. Lembke's opinions 10 include --11 THE COURT: Gateway. 12 MR. HANLY: Gateway, supply, the effect 13 of increased prescribing and so on. And, of 14 course, the whole issue of marketing 15 representations made by the Defendants. 16 Now, with respect to marketing causation 17 as Judge Polster opined, that's something 18 different from the ability of a witness such 19 as Dr. Lembke to testify based upon her, her 20 extensive work and her methodology, and her 21 interaction with physicians throughout the 22 United States that these marketing messages have an influence. 23 24 That's a different, that's a different 25 conclusion than the conclusion under some

76 1 Frye Hearing - Dr. Lembke 2 sort of marketing causation analysis. 3 THE COURT: He was clearly impressed with her credentials. I believe in the short 4 5 version of his decision was as to marketing causation in the absence of some kind of 6 7 marketing background, not only this witness, 8 but another witness would be prohibited, 9 although he does make it a point in his 10 decision to say, in all other respects, that 11 witness' opinions can be, can be pursued at trial. 12 13 MS. STRONG: Your Honor. 14 THE COURT: Yes. This is Ms. Strong? 15 MS. STRONG: Yes. This is Sabrina 16 Strong on behalf of Johnson & Johnson. 17 I would just note that what Mr. Hanly 18 said does not seem to comport with what Judge 19 Polster decided. I'm reading from his 20 opinion at page 12, and it says expressly the Court finds Lembke may not testify regarding 21 22 the effect that Defendants' marketing and 23 promotional efforts had on a doctor's prescribing practices. 24 25 He goes on to say he's excluding those

77 1 Frye Hearing - Dr. Lembke 2 opinions that purport to find Defendants' 3 marketing efforts resulted in or caused increased sales and/or increased 4 5 prescriptions of opioids. I think that's precisely what Mr. Hanly 6 7 was just referencing to you, your Honor, and 8 that is an issue. I would agree that the 9 scope of his direct seems to be going far 10 beyond what we're talking about in terms of 11 marketing causation, which I think is what we're here for, your Honor, but I just wanted 12 13 to make that point for clarity. 14 THE COURT: And as I noted at page 12, 15 he also notes the Court's ruling does not in 16 any way affect Lembke's remaining opinions, 17 including the remainder of her 3rd and 5th 18 opinions regarding the inaccuracy of 19 statements and representations of Defendants' 20 marketing materials and other promotional and/or educational efforts. 21 22 Here's my ruling. I'll sustain your 23 objection. And now we'll take a 15-minute 24 break. 25 MS. STRONG: Thank you, your Honor.

1	Frye Hearing - Dr. Lembke 78
2	(WHEREUPON, a short recess was taken.)
3	THE CLERK: Come to order. Part 48 is
4	back in session.
5	THE COURT: Remind the witness, please.
6	THE CLERK: Oh, I'm sorry. I remind
7	you, Doctor, you are still under oath.
8	MS. STRONG: Your Honor, it's Sabrina
9	Strong. One note before we begin.
10	THE COURT: Wait a second. Say it
11	again.
12	MS. STRONG: Just one note before we
13	begin. Can we have a sense of how much
14	longer Mr. Hanly intends to go?
15	This is one of those witnesses where we
16	requested two days with her, but we were
17	allotted one, and so we're concerned about
18	the amount of time. He said he's at Opinion
19	3 of 9, I believe. Can we have some
20	understanding in that regard?
21	THE COURT: Perhaps everyone will heed
22	the Court's instruction. I know Ms. Conroy
23	did during her direct examination. So
24	perhaps everybody will get on board the same
25	way.

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                     Frye Hearing - Dr. Lembke
 2
                   If I need more, I'll let you know. All
 3
               right. I'd like to finish this witness
 4
               today.
 5
                   MR. HANLY: Judge, I'm happy to
 6
              volunteer. I think maybe I have another hour
 7
               tops.
 8
                   THE COURT: Okay.
 9
                   MS. STRONG: Okay. Good to know.
10
                   THE COURT: He said about another hour
11
              tops.
12
                   Do you know what tops means in lawyer
13
               language? Okay. Let's go from there. Go
14
               ahead.
15
                   MS. STRONG: Thank you, your Honor.
16
       BY MR. HANLY:
17
                  Doctor, I want to briefly go back to
              Q.
18
       cover some aspects of the academic detailing that
       you discussed earlier, because it figures in the
19
20
       methodology and the bases for your opinion.
                   In the course of that academic
21
22
       detailing, did you have available to you examples of
23
       marketing statements made by certain of the opioid
24
       manufacturers and other opioid-related companies?
25
              A
                 Yes.
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80 1 Frye Hearing - Dr. Lembke 2 And did you study those statements in 3 comparison to the medical literature that you 4 reviewed? 5 A Yes. For example, if a marketing statement 6 was to the effect that addiction is a rare 7 occurrence, what corresponding scientific literature 8 9 would you go to to see whether that statement was 10 true or not? 11 I would go to the literature looking at 12 the risk of addiction in patients treated with 13 prescription opioids. 14 Does the body of medical literature that 15 you relied upon, is there anything novel about these 16 peer-reviewed papers such that they could not form a 17 basis for -- a proper basis for an opinion that you 18 would have concerning addiction? Well, many of the papers that purported 19 to provide evidence on the risk of addiction were 20 21 not actually founded in a methodology that could 22 reliably report that outcome. 23 But my question, Doctor, is, is the use 24 of scientific literature written by people other 25 than you, is that a novel basis that an

81 1 Frye Hearing - Dr. Lembke 2 investigator, a researcher would have regard to? 3 No, that's not novel. 4 Is it -- is there any degree of Q. 5 reliability that is ascribed to that body of 6 literature, assuming it's all or mostly peer 7 reviewed? 8 A Yes. So that's a foundational precept 9 of academic scholarly work is to critically review 10 the literature and that's --11 Now -- now, the marketing materials that 12 you have reviewed in this case and that you reviewed 13 prior to being involved in this case in preparing 14 your, your book, did you try to determine when you 15 were doing the academic detailing whether your own 16 experience was similar to the experiences of other 17 doctors who may or may not have received these sorts of marketing materials? 18 19 Α Yes. 20 And was there any consistency, or was 21 there inconsistency? 22 I heard a lot of inconsistency from my 23 peers. 24 Did that have any affect on your desire 0. 25 to continue the program of academic detailing?

82 1 Frye Hearing - Dr. Lembke 2 Yes. That motivated me to continue 3 academic detailing. 4 Did academic detailing to correct these Q. 5 misconceptions take up a small amount of time, a 6 medium amount of time, a considerable amount of 7 time, or what? 8 A considerable amount of time, yes. Ιn 9 the last four to five years, I've spent a 10 considerable amount of my professional time on this 11 project. 12 When you were academic detailing, did 13 you receive from physicians to whom you were 14 providing this detailing, any anecdotes or 15 recitations of experiences they had had in receiving 16 and reviewing literature about the risks and 17 benefits of opioids? 18 Yes. I heard a large chorus of voices 19 expressing a very similar experience and impression 20 as my own. 21 Q. When were you taught in medical school, 22 were you taught anything about the addiction 23 propensity of opioid medications? 24 Α None. 25 Q. And what year, again, did you finish

83 1 Frye Hearing - Dr. Lembke 2 your medical school? 3 Α 1995. 4 Are you aware that on December the 12th, 1995 the FDA approved the manufacture and sale of a 5 6 drug called OxyContin? 7 Α Yes. 8 Now, I want to discuss briefly you're --9 the basis for your opinion and the methodology used 10 to arrive thereat concerning whether a patient would need to have increased doses of an opioid over time 11 and whether such increased doses would put the 12 13 patient at risk of harm, okay? 14 Α Okay. 15 And among your opinions is, in sum and 16 substance, that very opinion that increased doses 17 put the patient at risk of harm; is that right? 18 Α Yes. Did you just pull that opinion out of 19 20 the air? 21 Α No. 22 Is that opinion shared by anybody else 23 in the world that you're aware of? 24 Α Yes. 25 Q. Is that opinion, has the CDC, the Center

84 1 Frye Hearing - Dr. Lembke 2 For Disease Control, ever issued any data, or 3 graphs, or anything else concerning whether 4 increased dosages over time of opioids puts the patient at increased risk? 5 6 Α Yes. 7 MR. HANLY: Okay. And could we have Slide Number 13, please? 8 9 BY MR. HANLY: 10 Doctor, this slide is entitled Higher 11 Dosage, Higher Risk, and it reads in part, and the 12 footnote indicates that this is a publication made 13 by the Centers for Disease Control and Prevention. 14 Do you see that in Footnote Number 1? 15 Α Yes. 16 Okay. And we quoted a little bit from, 17 from it, higher dosages of opioids are associated 18 with higher risk of overdose and death, even 19 relatively low dosages, 20 to 15 morphine milligram 20 equivalence, MME, per day, increased risk, higher 21 doses haven't been shown to reduce pain over the 22 long term. Did I read that correctly? 23 Α Yes. 24 And what do we see? Explain to me and 25 Justice Garguilo what we're seeing in these, in

85 1 Frye Hearing - Dr. Lembke 2 these two graphs. 3 So the graph on the left with the purple 4 line shows that as you go from low doses of 5 prescription opioids to higher doses of prescription opioids, the risk of overdose death due to those 6 7 opioids increases. 8 The graph on the right shows that as the 9 yellow line shows, that as you go from lower doses 10 of opioids to higher doses of opioids, the risk of 11 any opioid overdose event increases including nonlethal overdoses that often result in patients 12 13 showing up in emergency rooms unconscious. 14 So in both graphs what we're seeing, 15 would it be fair to say, you take more of the stuff, 16 you're increasing your risk of a bad outcome? 17 Α Yes. 18 And this Center for Disease Control 19 piece of a report actually has two other footnotes 20 referencing two other papers supportive of the 21 statement in this document. Do you see that, three 22 and four? 23 Yes. The Bonert paper, Number 3, the 24 graph on the left comes from the Bonert paper, and 25 the graph on the right comes from the Dunn paper.

86 1 Frye Hearing - Dr. Lembke 2 So my point is that this CDC publication 3 is not the only document that you looked at or relied upon in reaching your opinion that increased 4 dosage increases the risk of bad outcomes; is that 5 fair? 6 7 These are not the only documents I 8 looked at. That is correct. 9 And, in fact, so we have CDC, we have Q. 10 Bonert, we have Dunn, that's a total of three, but 11 are there other papers peer reviewed that are reliable that reach the same or similar conclusion 12 13 that more drug that you give, the likelihood is 14 you're going to have a bad event? 15 Α Yes. 16 And, by the way, Bonert is a 17 publication, it looks like JAMA. Is that the 18 Journal of the American Medical Association J? 19 Α Yes, it is. 20 Q. Is that a well-known journal? 21 Α Yes. 22 Q. And the Dunn paper is from something 23 call the Annals of Internal Medicine, right? 24 Α Yes. 25 Q. Are those two publications the Journal

87 1 Frye Hearing - Dr. Lembke 2 of the American Medical Association and the Annals 3 of Internal Medicine, are they both peer reviewed? 4 Yes, they are. Α 5 Are they regarded in the field of Q. medicine as publications that will reliably publish 6 7 material that those publications deem to be valid, 8 truthful? 9 A In general, yes. 10 Did you -- did any of these three 11 publications, were any of these relied upon by you as a part of your methodology in coming to the 12 13 higher dosage, higher risk opinion that you set 14 forth? 15 Α Yes. 16 Now, have you -- we talked earlier about 17 the marketing material that says that addiction is 18 rare. Do you remember that? 19 Α Yes. 20 And did you, in the course of your work 21 in connection with this case, did you look at, try 22 to figure out what the real percentage risk of 23 addiction is to patients administered opioid pain 24 medications? 25 A Yes.

88 1 Frye Hearing - Dr. Lembke 2 And was your methodology any different 3 in trying to come up with some statistics about the risk of addiction, was it any different from the 4 5 methodology you described at the very beginning of 6 this examination where you told Justice Garguilo 7 about the importance of a thorough review of all 8 parts of the pieces of medical literature? Did you 9 do anything different in connection with --10 No. Α 11 Ο. No? Is that what you said, Doctor? 12 That's right. Sorry. 13 Okay. And did you, in the course of Q. 14 your work, did you come across any papers that 15 themselves tried to pull together the results of a 16 number of other papers and set forth in that paper 17 what the actual risk is of addiction related harms from opioids? 18 19 A Yes. 20 MR. HANLY: Okay. Can we put up Slide 14, please? 21 22 BY MR. HANLY: 23 Ο. Now, Slide 14 is a chart that appears to 24 have a source as two papers. Do you see that? 25 Yes, I do.

89 1 Frye Hearing - Dr. Lembke 2 So one paper is by someone named, Vowles 3 and the other by someone named Boscarino; is that 4 correct? 5 A Yes. So please tell Justice Garquilo and us, 6 7 what are we seeing in this graph, and what is the 8 significance of this to your opinions, if any? 9 So the study population being examined 10 in both of these papers was specifically patients 11 being prescribed opioids for chronic pain in order to determine the risk of addiction to opioids in 12 13 that population. 14 And what we see here is that the Vowles 15 article in 2015, which is in blue, found that 16 approximately eight to 12 percent of chronic pain 17 patients being prescribed opioids long-term will 18 become severely addicted to opioids, and approximately 21 to 29 percent of those individuals 19 20 will misuse opioids. 21 Boscarino was another study that specifically looked at the risk of addiction in this 22 23 population and found similar numbers based on the 24 DSM-IV and the DSM-V criteria. 25 Q. Would any of these percentages eight to

90 1 Frye Hearing - Dr. Lembke 2 12, 13.2, 21 to 29, and 41.3, would any of those 3 percentages, based upon your work over the decades in addiction medicine, be regarded as rare instances 4 of adverse events? 5 No. This would not be considered to be 6 7 This would be considered to be common. Now -- thank you. You can put that 8 Q. 9 slide down, please. 10 Doctor, is there any amount of --11 withdrawn. 12 In the course of your work in connection 13 with this case, did you look at the question of 14 whether limited use of opioid painkillers could 15 result in an adverse event for the patient taking 16 the medication? 17 A Yes. 18 And did you look at any papers, 19 peer-reviewed papers that relate to the question of 20 limited use of the drug leading to a more persistent use and to an opioid use disorder? 21 22 Α Yes. 23 MR. HANLY: Okay. Can we put up Slide Number 15, please? Judge there's only 20 24 25 slides, so we're moving along pretty well.

91 1 Frye Hearing - Dr. Lembke 2 THE COURT: Thank you. 3 BY MR. HANLY: 4 Q. And this slide is titled -- entitled, 5 Even limited medical exposure can lead to persistent 6 use and OUD. That's opioid use disorder. 7 And tell the Judge what this is 8 depicting. 9 So these are data showing that patients 10 who are prescribed opioids for surgery, for example 11 in the Brummett paper, is thought to be an acute and self-limiting cause of pain, that 5.9 to 6.5 percent 12 13 of those individuals will still be taking 14 prescription opioids a year later. 15 So the important thing here is that 16 they're not being diagnosed in this study with 17 opioid use disorder addiction, but they're still 18 taking the opioids a year later when one would have 19 thought that their need for opioids would long be 20 over. 21 That's relevant because we do know that 22 the longer that patients are taking opioids, the 23 higher their risk of adverse health consequences, 24 including but not limited to addiction. 25 The same thing with the Delgado paper

92 1 Frye Hearing - Dr. Lembke 2 showing that a very limited prescription for opioids 3 for an ankle sprain, for example, to the, you know, 4 relatively benign and self-limiting injury at 4.9 percent of individuals receiving an opioid for that 5 type of injury will still be taking opioids a year 6 7 later. 8 Schroeder actually looked at whether or 9 not young people exposed to opioids through a dental 10 procedure will develop opioid use disorder within 11 one year and found that 6 percent of those individuals exposed to opioids for a wisdom tooth 12 13 removal will be diagnosed with an opioid addiction 14 within the year and 10 percent for women. 15 Thank you, Doctor. And this chart has 16 three footnotes, and the footnotes are all to 17 published papers, correct? 18 That is correct. Okay. And the first one is a Journal of 19 Q. 20 the American Medical Association, the surgery journal, correct? 21 22 Α Yes. 23 And the second, Delgado is a paper Q. 24 published in the Annals of Emergency Medicine? 25 Α Yes.

93 1 Frye Hearing - Dr. Lembke 2 And the final footnote to Schroeder 3 published in the Journal of the American Medical Association, Internal Medicine Journal, correct? 4 5 Α Yes. All three of these journals of low 6 7 regard, high regard, medium regard? 8 These are all high regarded competitive 9 journals. 10 Are they all peer reviewed? Ο. 11 Α Yes. Did you rely upon the findings of these 12 13 journals in connection with your work in this case? 14 Yes. Α 15 Is there any consensus in the medical 16 literature relating to addiction medicine including 17 any reports of any organizations concerning the question of whether there's a relationship between 18 increased supply of opioids in the country as a 19 whole and adverse outcomes? 20 21 A Yes. 22 And did you look at that issue in 23 connection with your work in this case, the 24 relationship between the supply and adverse outcomes 25 for particular patients?

94 1 Frye Hearing - Dr. Lembke 2 Α Yes. 3 And are there publications, peer reviewed or otherwise, that address this issue? 4 5 Α Yes. 6 MR. HANLY: Could we put up Slide Number 7 17, please? 8 BY MR. HANLY: 9 And here what we've done with this slide Q. 10 is we've put two quotations from two separate 11 reports side by side. On the left is a quotation 12 from a report of the Association of Schools and 13 Programs of Public Health, the ASPPH, correct? 14 Yes. Α 15 Please explain to Justice Garquilo what 16 that association is. 17 So it's an authoritative body on public 18 health issues, including numerous very prominent public health universities like Columbia that came 19 20 together to look at the opioid crisis to try to figure out what caused it and how to remedy it. 21 22 And they published a report bringing 23 science to bear on opioids from which this quote was 24 taken. 25 Q. And this quote, paraphrasing, is that

95 1 Frye Hearing - Dr. Lembke 2 the tremendous expansion of the supply led to scaled 3 increases in prescription opioid dependence and to 4 the transition of many to illicit opioids, including fentanyl, which have subsequently driven exponential 5 increases in overdose, correct? 6 7 Α Yes. 8 Q. And that quote came from a report of 9 this organization published in 2019? 10 Yes. Α 11 On the right-hand side we have a quote 12 from something called the National Academies of 13 Sciences, Engineering and Medicine, sometimes called 14 NASEM, correct? 15 Α Yes. 16 And just very briefly, what is that 17 organization? 18 Again, it's an authoritative body of 19 experts who come together to weigh in on looking at 20 the science regarding major issues related to 21 science, engineering and medicine. In this case, 22 this was a paper they wrote on the opioid crisis. 23 And that essentially -- paraphrasing it, Ο. it says the data presented make a prima facie case 24 25 that heavy promotion of opioid prescribing by drug

96 1 Frye Hearing - Dr. Lembke 2 manufacturers, including misleading claims by some, 3 and substantially increased prescribing by physicians were key contributors to the increase in 4 5 misuse, OUD, and accompanying harms. Did I read that correctly? 6 7 Α Yes. 8 Q. And did you, with respect to these two 9 publications, did you read the whole publication, or 10 did you just look at the abstract? 11 Yes, I read the whole publication. And did you, did you rely upon these 12 Q. 13 publications, these specific publications concerning 14 opioids in the course of carrying out your steps, 15 your methods for reaching your opinions? 16 Yes, but not exclusively. 17 Okay. Well, tell Justice Garguilo again Q. 18 what the other reliance was? I relied on the CDC data showing that as 19 20 opioid prescriptions increased, so did opioid-related overdose deaths and treatment 21 22 admissions. 23 I also relied on my clinical experience 24 and my interviews with many of my colleagues in 25 medicine. And in my clinical experience, I saw

97 1 Frye Hearing - Dr. Lembke 2 vastly increased opioid prescribing in the 1990s and 3 more and more patients coming in with opioid 4 addiction, more and more patients dying from opioid overdose. 5 So, again, you analyzed the literature 6 Ο. 7 written by folks other than you, and you relied on 8 what I've called your personal professional 9 experience over more than two decades? 10 Yes. That's right. 11 In connection with your publications, we 12 already discussed your research letter regarding 13 prescribing to Medicare patients, correct? 14 Α Yes. 15 And there was another paper that you 16 wrote and that was published concerning 17 overprescribing. Do you recall? 18 Α Yes. 19 Q. And could you just tell Justice Garquilo 20 what that second paper was about? We looked at which doctors in the United 21 22 States are prescribing opioids to try to detect 23 whether or not there were geographic differences or 24 differences by specialty. 25 And what we found was that by volume,

98 1 Frye Hearing - Dr. Lembke 2 primary care doctors prescribe the most opioids. 3 That makes sense because there are more of them than 4 other types of doctors. And by specialty, it's pain 5 medicine doctors that also -- that prescribe the most opioids. 6 7 But importantly what we saw was that there was not a small subset of so-called pill 8 9 doctors driving the increased prescribing, that 10 there was a wholesale paradigm shift and all doctors 11 across all specialties were prescribing large 12 amounts of opioids. 13 We also looked at geographic regions and 14 found that there were no differences geographically. 15 So all across the United States, there was an 16 enormous uptick in opioid prescribing based on the 17 data that we looked at. That was our findings. 18 THE COURT: Doctor, what constitutes 19 overprescribing? 20 THE WITNESS: Well, overprescribing, 21 certainly prescribing more than we were in 22 the 1990s despite the fact that we have not 23 seen an increased need for analgesia in this 24 country. 25 Overprescribing we can also look at

99 1 Frye Hearing - Dr. Lembke 2 other countries, other developed nations and 3 see how our prescribing compares to their 4 prescribing and see that we are prescribing 5 in some cases ten times more than other developed nations with aging populations and 6 7 similar needs for analgesia. 8 So when I talk about overprescribing, 9 I'm really comparing the way we prescribe now 10 to the way that we prescribed before the 11 Defendants launched their campaign in the 12 1990s promoting opioids. 13 THE COURT: Okay. Thank you. 14 BY MR. HANLY: 15 Doctor, you, in the course of your 16 answer that you just gave before Justice Garquilo's 17 question, you talked about consistency of 18 prescribing, prescribing habits across the nation, 19 right? 20 Α Yes. 21 Now, did you look at any statistics on 22 the changes in the rate of prescribing in either New 23 York State and/or Suffolk County and/or Nassau 24 County? 25 Α Yes.

100 1 Frye Hearing - Dr. Lembke 2 And can you just generally, without 3 holding you to specific percentages, just describe 4 generally for Justice Garquilo what you found and the extent to which, if any, that the trends, if 5 any, that you saw are different from national 6 7 trends? 8 So we saw no difference in New York 9 State compared to national trends. New York is in 10 no way an outlier in terms of this phenomenon. And the same is true for Suffolk and Nassau County. 11 Now, Doctor, Justice Garguilo mentioned, 12 Q. 13 and you wrote in your book, and it's referred to 14 elsewhere concerning a phenomenon or claimed 15 phenomenon called the gateway effect, true? 16 Α Yes. 17 Just for clarity, would you just explain 18 briefly what the gateway effect is? Patients who are prescribed opioids for 19 20 a medical condition can go on to misuse the opioids 21 that they have been personally prescribed, which 22 then subsequently can lead to a severe opioid addiction, including progression to the use of 23 24 heroin and other illicit opioids. 25 Is the gateway effect, does it have any

Q.

101 1 Frye Hearing - Dr. Lembke 2 acceptance, general acceptance, or otherwise in the 3 medical community to describe the phenomenon you 4 just described? 5 Yes. I would say it's strongly accepted in the medical community to describe what I just 6 7 described. 8 Q. It's not a term that you just invented, 9 is it? 10 No. Α 11 Is there support, is there reference in 12 the medical literature to the gateway effect? 13 Α Yes. 14 MR. HANLY: Could we put up Slide 18, 15 please? 16 BY MR. HANLY: 17 Now, slide 18, am I correct, Doctor, Q. 18 this is, we've pulled out some quotes from this 19 National Academies report. It's called a consensus 20 study report from NASEM, and it's entitled Pain 21 Management and the Opioid Epidemic. 22 And the quote, first quote we have is a 23 preponderance of evidence suggests that the major 24 increase in prescription opioid use beginning in the 25 late 1990s has served as a gateway to increased

102 1 Frye Hearing - Dr. Lembke 2 heroin use. 3 And then below that, we pulled out the 4 quote, In any related nature of the prescription in 5 the illicit opioid epidemic means that one cannot be addressed separately from the other. Did I read 6 7 that correctly? 8 Α Yes. And the second one, would that -- well, 9 10 just state to the Court what the second sentence 11 actually means in terms of prescription versus 12 illegal drugs. 13 It means that to really understand this 14 opioid epidemic, we have to look at the way that we 15 have been prescribing prescription opioids in the 16 house of medicine. 17 That the problem of addiction and the 18 problem of chronic pain and even nonchronic pain 19 treated with opioids, those problems are deeply 20 interrelated. 21 Q. And, Doctor, are there any studies that 22 you're aware of that have looked at the question of 23 gateway effect in the State of New York? 24 Α Yes. 25 MR. HANLY: Could we put up Slide Number

103 1 Frye Hearing - Dr. Lembke 2 19, please? 3 BY MR. HANLY: 4 Now, here we have some quotes from a Q. paper by someone named Lankenau in the International 5 Journal of Drug Policy. Do you see that? 6 7 Α Yes. 8 Q. And this study was actually a study of 9 intravenous drug users in the City of New York and 10 the City of Los Angeles. Is that true? 11 Α Yes. 12 Q. And we pulled out two quotes. One at 13 the top, paraphrasing, initiation into opioid misuse 14 was facilitated by easy access via participant's own 15 prescription, family or friends, and occurred 16 earlier than misuse of other drugs, of other illicit 17 drugs. Prescription opioid misuse was a key feature 18 of trajectories into injection drug use and/or heroin use. Did I read that correctly? 19 20 Α Yes. 21 And then the second is the scientific 22 literature has identified several specific 23 subpopulations involved in prescription opioid 24 misuse and diversion that are so diverse that it is 25 not feasible to study them in a single

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104
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                      Frye Hearing - Dr. Lembke
 2
       investigation.
 3
                    High school students, college students,
 4
       older persons, and women most of whom initially
 5
       obtain a prescription drug via legitimate medical
 6
       practices, correct?
 7
              A
                   Yes.
 8
              Q.
                    Did you rely on this study for your
 9
       opinion relating to the so-called gateway effect?
10
              Α
                    Yes.
11
                    Is this study, is this paper a
12
       peer-reviewed paper?
13
                   Yes, it is.
              A
14
                    Is this a reliable, or highly regarded,
15
       or lowly regarded publication?
16
                    This is a reliable source.
17
                    What's happened between 2010 and 2017
              Q.
18
       with respect to New York State deaths from opioids?
                    There has been an increase in
19
20
       opioid-related overdose deaths in the State of New
       York in that timeframe.
21
22
                    MR. HANLY: Slide Number 20, the last
23
               slide, please.
24
       BY MR. HANLY:
25
               Q.
                    Doctor, I guess it's pretty clear what
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105
 1
                     Frye Hearing - Dr. Lembke
 2
       this shows, but why don't you explain to Justice
 3
       Garquilo and us?
                    This shows that between 2010 and 2017
 4
              Α
 5
       the number of opioid-related overdose deaths in
 6
       persons aged 25 to 44 increased more than fourfold
       in the State of New York.
 7
 8
              Q.
                   And in a very -- in a slide very early
 9
       in the examination, did we see an increase over
10
       roughly the same time period in the number of
       prescriptions written in New York State?
11
12
              Α
                   Yes.
                   MR. HANLY: Thank you, Doctor. That's
13
14
               all I have.
15
                   THE WITNESS: Thank you.
16
                    THE COURT: Ms. Strong, it's almost
17
               12:30. Do you want to get started, or would
18
               you prefer starting after the luncheon
19
               recess?
20
                   MS. STRONG: Let's just start after the
21
               luncheon recess, your Honor.
22
                    THE COURT: Okay. We'll resume at 1:45.
23
                   MS. STRONG: Thank you, your Honor.
                    (WHEREUPON, after a luncheon recess, the
24
25
               following was had:)
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106 1 Frye Hearing - Dr. Lembke 2 MR. HANLY: Your Honor, before 3 Ms. Strong begins, can I put something on the record? 4 THE COURT: Yes. First, remind the 5 witness, then you can put something on the 6 7 record. 8 THE CLERK: Doctor, I remind you you're 9 still under oath. 10 THE WITNESS: Thank you. 11 MR. HANLY: Your Honor, I just wanted to 12 place on the record, we had a dispute earlier 13 in the examination concerning Slide Number 14 12. Representation was made by defense 15 counsel, in effect, that we were ambushing 16 them, they hadn't seen it. 17 I wish to point out to the Court and 18 counsel that this slide, Exhibit 12, was a joint exhibit, Defendants' and Plaintiffs' 19 20 Exhibit in the MDL, bearing number 17232, and 21 that exhibit, joint exhibit list was created 22 and filed on September 25th 2019, which is a 23 year ago. 24 THE COURT: Miss Strong, there was an 25 indication that that piece of paper, that

107 1 Frye Hearing - Dr. Lembke 2 document, that thing, that exhibit was only 3 used in West Virginia and not part and parcel of the MDL in Ohio, I just heard something 4 5 otherwise. MS. STRONG: I think the argument he's 6 7 trying to make, your Honor, is that we knew 8 of that underlying document period and the 9 abstract. The question here is was that a 10 document that Dr. Lembke relied upon in 11 support of her opinions. There are millions and millions of 12 13 documents in this litigation, your Honor, and 14 the question that we are here to address 15 today is the basis for Dr. Lembke's opinions, 16 and my point is that we -- the rules do not 17 allow for us to be sandbagged by documents 18 being presented to us the night before and 19 saying she, too, is relying on these 20 additional documents. That's the point your 21 Honor. 22 THE COURT: Okay. So now we've heard 23 ambushed and sandbag, all right. 24 MS. STRONG: I know you don't like those 25 types of terms, but I think this is classic

108 1 Frye Hearing - Dr. Lembke 2 sandbagging, so I don't use those terms 3 lightly, your Honor. 4 MR. SHKOLNIK: If I may, your Honor, 5 Napoli Shkolnik, first of all, this is New York, and our rules do allow us to rely upon 6 7 authoritative articles that come up that 8 become available. There's no prejudice here. 9 I think that's the rule in New York. 10 It is not sandbagging. I don't think 11 it's appropriate to use here. They knew 12 about this study, they knew about everything 13 that we've listed for them, and it's inappropriate to suggest that it can't be 14 15 utilized in this process before trial, which 16 we could have supplemented even at that 17 point. I just wanted to state based on New 18 York practice. 19 THE COURT: If you were sitting here, 20 what should I do? 21 MR. SHKOLNIK: You've already done it, 22 your Honor. It's in the record, you'll 23 consider it, use it for what it's worth, and 24 it's really a nonissue. 25 THE COURT: Here's a fair compromise.

1	Frye Hearing - Dr. Lembke 109
2	If accepted, it will go to weight, to the
3	weight of the evidence, and not to the
4	whatever the opposite of the weight is.
5	MR. SHKOLNIK: And I'm sorry for talking
6	through the mask, I apologize.
7	THE COURT: Doctor, are you ready?
8	THE WITNESS: Yes.
9	THE COURT: Miss Strong, go ahead.
10	MS. STRONG: And, Mr. Pyser, did you
11	want to say something before I begin? I just
12	didn't want to interrupt? Because I see you
13	on my screen.
14	MR. PYSER: No, that's okay.
15	MS. STRONG: Okay. Thank you.
16	THE COURT: Did I step on your order?
17	MS. STRONG: No. No, no. You're
18	doing it correctly. It's just Mr. Pyser is
19	up on my screen, and I know he's examining
20	today, I didn't know if he wanted to say
21	anything more before we begin, your Honor.
22	THE COURT: He's very big on my screen,
23	too.
24	MR. PYSER: And I apologize to all of
25	you.

1 110 Frye Hearing - Dr. Lembke 2 EXAMINATION BY MS. STRONG: 3 Q. Good afternoon, Dr. Lembke. 4 5 A Good afternoon. 6 My name is Sabrina Strong, and I 7 represent Johnson & Johnson and Janssen in this 8 litigation. I want to turn first to some specifics 9 about your training and experience. 10 You're not an economist, correct? That is correct. 11 Α 12 You do not have a degree or training in Q. 13 marketing, correct? 14 That is correct. 15 You do not have any employment 16 experience working in the field of pharmaceutical 17 marketing; do you? 18 A No. You don't belong to any professional 19 Ο. 20 associations in the field of pharmaceutical marketing either, correct? 21 22 That's correct. 23 Q. You also do not have any experience 24 regarding FDA regulations that govern pharmaceutical 25 marketing, correct?

111 1 Frye Hearing - Dr. Lembke 2 That's correct. 3 You do not have any degrees or training 4 in pharmacoeconomics? 5 Since I don't know what that is, the answer is no. 6 7 We'll skip that. Q. 8 You're aware that there is a scientific 9 field called econometrics, correct? 10 Α Yes. 11 Are you aware that that field applies 12 statistical methods to economic data? 13 A Yes. 14 But you do not have any degrees or 15 training in econometrics of sales or marketing, 16 correct? 17 A That is correct. 18 Okay. So you're testifying here today as a retained expert for the Plaintiffs, which in 19 20 this case it's the State of New York, Nassau County, Suffolk County, correct? 21 22 Α Yes. 23 But before this case, you were retained 24 by the Plaintiffs in the federal multidistrict 25 litigation pending in Cleveland, Ohio, correct?

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                     Frye Hearing - Dr. Lembke
 2
              Α
                   Yes.
 3
                   You submitted a report in connection
              Q.
       with that MDL proceeding, right?
 4
 5
              Α
                   Yes.
 6
                    (Video disconnected.)
 7
                    THE COURT: We're back doctor, to a
 8
               degree.
 9
                   MS. STRONG: It sounds like everybody
10
              got kicked off, your Honor; is that right?
                    THE COURT: Yes. We're almost back on.
11
12
              They're just testing.
13
                   MS. STRONG: Ready, your Honor.
14
                   THE COURT: Back on board. Let's go.
15
                   MS. STRONG: Okay.
16
                   So I was just asking you, Dr. Lembke,
              Q.
17
       about the report you submitted in the MDL, and you
       confirmed that you did submit a report in the MDL
18
       proceeding, correct?
19
20
              A
                   Yes.
21
                   Okay. And there are some structural
22
       differences between your report in the MDL and your
23
       report here, but the opinions in both are the same,
24
       correct?
25
              A Yes.
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113 1 Frye Hearing - Dr. Lembke 2 You understand that Judge Polster, in 3 the federal MDL proceeding, ruled that he would not 4 be permitted to opine on marketing causation in his 5 court, because you do not have the marketing expertise necessary to offer those causation 6 opinions, correct? 7 8 Α Yes. 9 Okay. And you have distinguished the 10 question of whether opioid marketing material was consistent or inconsistent with scientific evidence 11 from the question of causation, correct? 12 13 Yes. Α 14 MS. STRONG: Okay. And so we put 15 together a demonstrative that draws out that 16 distinction. 17 And, Pam, if you're able to, can you 18 pull up Slide 1, and I believe it's being handed out in the court at this time as well, 19 20 or I would ask Mr. Asher to do so. 21 Q. And so I'd like you to look at these 22 questions, Dr. Lembke. 23 Question 1 is: Was each Defendant's 24 promotion, if any, informed by scientific evidence? 25 Question 2: If not, did misleading

114 1 Frye Hearing - Dr. Lembke 2 promotion by any Defendant cause doctors to write 3 medically inappropriate prescriptions? And then there's a third question, apart 4 from that distinction that you made between 1 and 2, 5 the third question is: Did those prescriptions, if 6 7 any, lead to opioid addiction, misuse or overdose? 8 Do you see those questions, Dr. Lembke? 9 Yes, I do. A 10 You spent a considerable amount of time 11 with Mr. Hanly talking about question 1, but I want to focus on questions 2 and 3. 12 13 And so with that, Pam, if you can pull 14 that down, and I'll ask you some questions focusing 15 on that second question. 16 So let's talk about a doctor's decision 17 to prescribe medications to a patient. 18 At a high level you agree that opioid 19 prescribing practices depends largely on the doctor, 20 correct? 21 A No. 22 Well, you would agree that there is a 23 huge variation in opioid prescribing across the 24 country and it continues to depend largely on the 25 doctor, right?

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                      Frye Hearing - Dr. Lembke
 2
              Α
                   No.
 3
                   Okay. Do you recall being deposed in
              Q.
       this case, Dr. Lembke, on January 16th 2020?
 4
 5
              A
                   Yes.
 6
                   Okay. And I would like to show you a
 7
       portion of your deposition testimony. For your
 8
       benefit and for the Court's benefit, I'd like to
 9
       refer you to page 54.
10
                    If Pam can put this up on the screen,
11
       page 54, lines 15 through lines 24.
12
                    THE COURT: Okay.
13
                    MS. STRONG: And I don't know if you
14
              have your transcripts with you, Dr. Lembke or
15
              if you prefer to read it off the screen.
16
                   Can you read that okay, Dr. Lembke?
              Q.
17
              Α
                   Yes.
18
                   Okay. And at your deposition on January
19
       16th 2020 here in the New York case, you were asked
20
       the following question:
21
                    "Has the number of pills in a
22
       prescription for three weeks of opioids remained the
23
       same over the past decade?
24
                    ANSWER: There is huge variation in
25
       opioid prescribing across the country. In some
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116
 1
                      Frye Hearing - Dr. Lembke
 2
       geographic regions opioid prescribing has decreased
 3
       rapidly. In others, it has not. It really depends
       on which doctor.
 4
 5
                    QUESTION: So it depends on the doctors
 6
       then?
 7
                    ANSWER: It continues to depend largely
 8
       on the doctor, yes."
 9
                    Is that the testimony that you gave at
10
       your deposition in this case, Dr. Lembke?
                   Yes, it is.
11
              Α
12
                   Okay. And doctors are expected to weigh
13
       the risks and benefits of any prescription
14
       medication for each particular patient before
15
       deciding to prescribe it, correct?
16
                   Yes.
              A
17
                   For example, there are numerous patient
18
       specific risk factors for opioid addiction, right,
19
       you believe that?
20
                    I'm sorry, can you repeat the question.
21
              Q.
                   I can.
22
                    There are numerous patient specific risk
23
       factors for opioid addiction, correct?
24
              Α
                   Yes.
25
              Q. One of those risk factors is personal
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117 1 Frye Hearing - Dr. Lembke 2 history of substance abuse? 3 Α Yes. 4 Q. Another is family history of substance 5 abuse? 6 Yes. Α 7 Childhood trauma is another factor? Q. 8 Α Yes. 9 And psychiatric comorbidity, correct? Q. 10 Α Yes. 11 And by that, just for the benefit of the 0. 12 Court and for clarity, you mean an individual who 13 has a psychiatric disorder, other than the disease 14 of addiction, which could include everything from 15 major depression, obsessive compulsive disorder, 16 bipolar disorder and schizophrenia, correct? 17 Α Yes. 18 Although you've traveled to New York and 19 you've talked with some doctors in New York, you do 20 not know whether you have talked with any doctor who practices in Nassau County about his or her 21 22 experiences with prescription opioids, correct? 23 Α That is correct. 24 And the same is true for Suffolk County, 25 you do not know whether you have ever talked with a

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118 Frye Hearing - Dr. Lembke doctor who practices in Suffolk County about his or her experience with prescription opioids, correct? Α Yes. In fact, the only doctors in New York who prescribe opioids that you can identify are doctors reported in lay-newspapers as operating pill mills, correct? I'm sorry, could you say that again. Ο. Absolutely. The only doctors in New York who prescribed opioids who you could identify are 13 doctors reported in lay-newspapers as operating pill mills, correct? No, that's not correct. Α And, again, I'd like to pull up -- I Q. would like you to look at a portion of your deposition testimony in this case, the January 16th 2020 deposition. For everyone's benefit we're turning to page 207, lines 4 through 10. Pam, if you could put that up and everyone can take a moment to get their place, page 207. You were asked at your deposition, question, line 4.

119 1 Frye Hearing - Dr. Lembke 2 "So these are reports in the newspaper 3 about pill mill doctors in New York? 4 ANSWER: That's right. 5 QUESTION: Okay. Other than that, can you give -- identify any doctor who prescribed 6 7 opioid medications to any individuals in New York? 8 ANSWER: No." 9 Dr. Lembke, that was the testimony that 10 you gave at your deposition in January, correct? 11 Α Yes. 12 So that means you didn't try to identify 13 which doctors in New York, if any, saw any of the 14 specific marketing materials you identified as 15 problematic in your report, correct? 16 No, that's incorrect. 17 Well, you didn't identify any doctors Q. 18 who relied upon any specific marketing materials, correct, in describing decisions? 19 20 That is incorrect. 21 Okay. Did you identify in your report 22 any doctors or the scope of doctors who you believed saw a particular Defendant marketing materials and 23 actually relied upon it in making a decision; did 24 25 you identify those folks in your report?

120 1 Frye Hearing - Dr. Lembke 2 Not in my report, no. 3 Did you identify them at your Q. 4 deposition? 5 Α No. 6 In forming your opinions, in forming 7 your opinions you also didn't conduct a survey of 8 New York doctors to try to understand what factors 9 they considered in deciding to prescribe opioid 10 medication to any particular patient; did you? 11 What do you mean by "a survey?" Well, I'm not talking about anecdotes. 12 Q. 13 I'm talking about a scientifically rigorous survey. 14 You didn't conduct a survey to 15 understand what factors any New York doctor 16 considered in deciding to prescribe an opioid 17 medication to any particular patient, correct? 18 Α No. And you also did not conduct a survey of 19 0. 20 New York doctors to try to learn what marketing 21 materials, if any, the prescribers in New York may 22 have received from each individual Defendant, that 23 was not part of your methodology in coming up with 24 your opinions in this case, correct? 25 No, that's incorrect.

121 1 Frye Hearing - Dr. Lembke 2 You conducted a survey, a scientifically 3 rigorous survey to try to learn what marketing materials, if any, a prescriber in New York saw, may 4 5 have received from each Defendant? 6 So in the research for my book I 7 conducted quantitative interviews with doctors 8 providing what they relied upon in their opioid 9 prescribing, including some healthcare professionals 10 in New York. 11 Q. Okay. So I, I would like you to turn to your January 16th 2020 deposition. If we can pull 12 13 that up again. It's page 175, line 5, and it runs 14 to line 20. Pam, you've got that on the screen. 15 Dr. Lembke, you were asked at your 16 deposition: 17 "So you conducted no comprehensive 18 survey of doctors and nurses in New York to 19 understand what marketing materials, if any, 20 prescribers in New York received from what individual Defendants; is that correct?" 21 22 It's correct that the survey --23 Let me finish the question. Ο. 24 A I'm sorry. 25 Q. And so the transcript goes on to say:

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122
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                      Frye Hearing - Dr. Lembke
 2
       "I feel like I answered the question to the best of
 3
       my ability."
 4
                   A follow-up question is asked at line
 5
       12: "So do you have a survey that you can show us
 6
       where you surveyed doctors and nurses in New York
 7
       regarding asking them, for example, Mallinckrodt,
 8
       what specific marketing materials did you, Dr.
 9
       Smith, in Nassau, receive from Mallinckrodt; do you
10
       have that to produce?
11
                    ANSWER: I don't have a survey at that
       level of specificity."
12
13
                    That's your testimony from your
14
       deposition, correct, Dr. Lembke?
15
              Α
                   Yes.
16
                   Okay. And you did not do a regression
              Q.
17
       analysis as part of your methodology; did you?
18
              Α
                   No.
19
               0.
                   So to be clear to the Court, make sure
20
       we're on the same page, was there a regression
21
       analysis, is a tool that's employed to try to
22
       isolate the impact of one factor on another while
23
       controlling for potentially confounding factors,
24
       correct?
25
              Α
                   Yes.
```

123 1 Frye Hearing - Dr. Lembke 2 Okay. And we've been talking about 3 doctors -- I want to shift gears for a moment. 4 Pam, can you actually put up Slide 1 for 5 us again one more time. 6 I want to remind you of what question 3 is. It says: "Did those prescriptions, if any, 7 8 lead to opioid addiction and misuse of use or 9 overdose?" 10 All right. So, Pam, you can pull that 11 back down. 12 And so with that in mind, turning to 13 patients, in forming your opinions, you haven't 14 examined patient outcomes for any particular patient 15 in the State of New York who was prescribed one of 16 the Defendants' opioid medications; have you? 17 In my book I describe a patient who I 18 interviewed using qualitative methods who was prescribed an opioid in the State of New York. 19 20 Q. So in forming your opinions you relied 21 upon that, that's your experience from New York, 22 that one anecdote? That is part of my experience for New 23 24 York, yes. Okay. So you've not done anything more 25 Q.

124 1 Frye Hearing - Dr. Lembke 2 to examine patient outcomes for any particular 3 patient in the State of New York who was prescribed one of the Defendants' opioid medications; have you? 4 5 Not by directly interviewing a patient, Α 6 no. 7 And you didn't review individual medical Q. 8 records either, correct? 9 Correct. Α 10 And you didn't actually speak to any 11 patients in Nassau or Suffolk County for purposes of 12 forming your opinions in this case at all, correct? 13 Correct. Α 14 And you mentioned that one anecdote in 15 Which drug did the patient take? your book. 16 She was prescribed buprenorphine. A 17 Any other drug? Q. 18 Α No. 19 Q. So given that you didn't examine 20 patients broadly in forming your opinions, other 21 than the one anecdote you gave us, you didn't talk to folks in Nassau or Suffolk, you didn't talk to 22 23 patients there, that means that you didn't consider, 24 as part of your methodology, whether any particular 25 patient in New York suffering from chronic pain

1 125 Frye Hearing - Dr. Lembke 2 actually benefited from Defendants' opioid 3 medications, correct? I'm sorry, could you restate the 4 5 question? 6 Sure. Q. 7 Given what you've said, as part of your 8 methodology you didn't consider whether any 9 particular patient in New York who suffers from 10 chronic pain actually benefited from Defendants' opioid medications, correct? 11 12 I did have conversations with patients 13 in New York, others beyond the one that was in my 14 book regarding whether or not they benefited from 15 opioid medications. 16 So you got some anecdotal conversations, Q. 17 that's what you're referring to? 18 I have conversations that I think go 19 beyond anecdote. 20 Okay. But you just testified in forming Q. your opinions in this case you didn't review 21 22 individual medical records or talk with patients in 23 coming up with your opinions in this case; isn't 24 that correct? 25 I didn't review medical records, but I

1 126 Frye Hearing - Dr. Lembke 2 did talk to patients. 3 Q. Anecdotally? 4 I think they were interviews based on 5 quantitative methodology. 6 And are they identified in your expert 7 report, Dr. Lembke, in things that you relied upon 8 in forming your opinions in this case? 9 No. We did not identify individual 10 patients in my report. 11 Because that's not part of your methodology in forming your opinions in this case, 12 13 correct, Dr. Lembke? 14 No, that's not correct. 15 So you have a methodology that you 16 failed to disclose to us, Dr. Lembke; is that your 17 testimony? 18 Α No. Okay. You haven't looked at individual 19 Ο. 20 prescribing decisions of doctors in New York, and 21 you haven't surveyed them for purposes of in terms 22 of a scientifically rigorous survey for coming up 23 with your, your opinions here, but your analysis 24 does depend, in part, on your belief that there's no 25 reliable evidence that long-term opioid therapy is

127 1 Frye Hearing - Dr. Lembke 2 effective for chronic non-cancer pain, correct? 3 Α Yes. 4 Q. You recognize that the FDA has approved 5 certain prescription opioid medications for the 6 management of chronic pain, right? 7 Α Yes. 8 Q. And, for example, the FDA has approved 9 Nucynta Er with the indication for management of chronic pain, correct? 10 11 Α Yes. 12 The same is true for Duragesic? Q. 13 Yes. Α 14 The same is true for Exalgo? Q. 15 Α Yes. 16 The same is true for Kadian, correct? Q. 17 Α Yes. 18 Q. There are a number of generic drugs, generic long-acting opioids that are also approved 19 20 for the management of chronic pain, correct? 21 Α Yes. 22 Some of those medications are 23 manufactured by some of the Defendants in this case, 24 correct? 25 Α Yes.

128 1 Frye Hearing - Dr. Lembke 2 You understand that before approving any 3 prescription opioid medication the FDA must determine that it's safe and effective? 4 5 Well, I just lost sound. Can you repeat that? 6 7 Q. Yes. 8 Can you hear me okay? 9 Yeah. Α 10 We have some volume, some noise. 11 don't know if you can hear it. 12 I hear some static, which makes it 13 harder to hear you. 14 Yes. I think it's gone now, Dr. Lembke. 15 Can you hear me better? 16 Yes. Thank you. 17 So my question was: You understand that 18 before approving any prescription opioid medication the FDA must determine that it's safe and effective 19 20 for its indicated use, correct? Yes, I understand that. 21 22 You also understand that for a drug to 23 be approved for marketing FDA must determine that 24 the drug is effective and that the benefits outweigh 25 its potential risk to patients; is that right?

129 1 Frye Hearing - Dr. Lembke 2 Α Yes. 3 But you don't believe that the totality of the evidence that the FDA reviewed in connection 4 5 with approving prescription opioid medications for 6 treatment of chronic pain support that indication, 7 correct? 8 Α That is correct. 9 In your opinion, Dr. Lembke, the FDA was Q. 10 just wrong on this issue, correct? They were wrong and also to some extent 11 12 duped. 13 Do you believe they were wrong, Dr. Q. 14 Lembke? That's my question. I would like you to 15 answer my questions. 16 Yes. Α 17 So putting aside some of the details 18 that we just covered, at bottom you believe that 19 doctors have prescribed too many opioid medications, 20 correct? 21 A Yes. 22 Q. As part of your work in this case, 23 you've not identified any specific prescription for 24 an opioid medication written in the State of New 25 York that you believe is medically unnecessary,

130 1 Frye Hearing - Dr. Lembke 2 correct? 3 And, again, I'm focused on your work in 4 forming your opinions for this case, that which was disclosed to the Defendants. I'm not talking about 5 anecdotal conversations you may or may not have had. 6 7 I'm really trying to focus on the basis of your 8 opinions in this case as disclosed to the parties. 9 So do you need me to repeat the 10 question? 11 Α Sure. 12 So as part of your work in this case, in 13 forming your opinions here you have not identified 14 any specific prescription for an opioid medication 15 written in the State of New York that you believe is 16 medically unnecessary, correct? 17 It's hard for me to answer that yes or 18 I did research for my book, which preceded my 19 involvement in this litigation, which just formed my opinion, and in that process I did qualitative 20 interviews, including with individuals in New York 21 22 State. 23 Ο. Okay. Just so we have absolute clarity 24 on this, why don't we go ahead and turn to page 207 25 of your January 2020 deposition. For everyone in

131 1 Frye Hearing - Dr. Lembke 2 the courtroom it's page 207, lines 21, and it runs 3 on to page 208, line 3. Pam has pulled it up. 4 Thank you very much, Pam. 5 So at line 21 you were asked: "So my question was a bit different, so let me just ask 6 7 this: Is your opinion in this case based on 8 identifying concrete examples of specific 9 prescriptions of any opioids written in New York 10 that you believe in your opinion were medically 11 unnecessary or inappropriate? 12 ANSWER: My opinion is not based on 13 specific prescriptions, it's based on aggregate 14 prescriptions." 15 That was the testimony that you gave in 16 your deposition in this case, correct? 17 Α Yes. 18 Did you include those qualitative 19 interviews that you just referenced? Did you 20 include those interviews in your expert materials in this case? 21 22 Α Yes. 23 Okay. And can you identify where those 24 are located in your expert materials? 25 Defense asked for those documents. They

132 1 Frye Hearing - Dr. Lembke 2 were copied and given to defense counsel. They were 3 used in deposition. I was asked questions regarding 4 those documents in deposition. 5 And you gave the answer, the aggregate Q. prescription is what you relied upon. That's what 6 7 you testified to at the deposition, right? Your 8 opinion is not based on specific prescriptions, in 9 terms of forming your opinion in this case, it was 10 based on aggregate prescriptions, correct? That is what I testified at the 11 12 deposition, yes. 13 And you can't point to any particular 14 prescription for any Janssen opioid medications and 15 tell the jury that those are medically unnecessary, 16 that's not something that you're going to do in this 17 case, correct? 18 A No. THE COURT: "No," or "no," not correct? 19 20 THE WITNESS: Sorry. Ask the question 21 again. 22 So I'll rephrase it a little bit. 23 You can't point to any particular prescription for any Janssen opioid medications and 24 25 tell the jury that those are medically unnecessary?

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133
 1
                      Frye Hearing - Dr. Lembke
 2
                   No, I cannot point to any specific
 3
       Janssen prescriptions.
 4
              Q.
                   The same is true for Allergan, correct?
 5
              A
                   Yes.
 6
                   And Teva?
              Q.
 7
              Α
                   Yes.
 8
              Q.
                   Endo?
 9
              A
                   Yes.
                   Mallinckrodt?
10
              Q.
11
              A
                   Yes.
12
                   So your opinion in this case instead is
13
       that the total number of opioid prescriptions
14
       written was too many, right?
15
              Α
                   Yes.
16
                   Even though you're focused on the total
17
       number of opioid prescriptions, you still don't know
       what the right number of opioid prescriptions is,
18
19
       correct?
20
                    I don't think that's correct. No, I do
       have an opinion about that.
21
22
                  Okay. So let's go and pull up your
23
       deposition. It's page 115 -- let me ask it slightly
24
       differently before we do that, Pam, actually, one
25
       moment.
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134 1 Frye Hearing - Dr. Lembke 2 You don't know the right number of 3 patients -- I mean, let's set aside total number of 4 prescriptions. You don't know the right number of patients who should be prescribed opioid medications 5 in this country are in New York or not; do you? 6 7 Well, I'm not sure what you mean by "the 8 right number." I mean, I don't have a specific 9 number. I do have an opinion that we should be 10 prescribing a lot less than we're currently 11 prescribing and for a much narrower indication. 12 Q. Okay. So you think it should be less, 13 but my question is what is the right number? You 14 don't know what the right number of prescriptions 15 is, correct? 16 I have not calculated a single number, 17 no. 18 Q. And, in fact, the most you've testified to at your deposition is you said: It's hard to say 19 20 what the number should be. I think it should be 21 lower. Correct? That's what you said at your 22 deposition? 23 A Yes. 24 Okay. So that means you can't tell the 25 Court, for example, how many fewer Kadian

135 1 Frye Hearing - Dr. Lembke 2 prescriptions should have been written, correct? 3 As I said to the Judge earlier, a rough 4 estimate is that we're writing four to five times 5 too many opioid prescriptions compared to what we were writing in the 1990s. So that could also apply 6 7 to Kadian's products. 8 Is it your opinion that the correct Q. 9 number of prescriptions is those that were written 10 in 1990? 11 I think we were closer to what was 12 appropriate for the actual need for analgesia in the 13 population. 14 Q. That was -- in the 1990 you do 15 understand that the Defendants' products mostly did 16 not exist, correct? Do you understand that? 17 There are a lot of products. I don't 18 know the exact dates of every single product and when it came out on the market. 19 20 Q. So you don't know that most of the 21 Defendants' products at issue in this case didn't 22 exist in 1990; is that your testimony, Dr. Lembke? 23 I'd like to see the material on that. 24 I'm happy to review any additional material. 25 Q. I'm just asking if you happen to know as

136 1 Frye Hearing - Dr. Lembke 2 an expert opining in this case, whether the vast 3 majority of the products at issue in this case did not exist in 1990; do you know that or not? 4 Well, I, I would disagree that it's the 5 vast majority. Morphine was available, OxyContin 6 7 was available, hydrocodone products were available. 8 I'm talking about the Defendants' Q. 9 branded products at issue in this litigation as a 10 starting point, most of them did not exist; do you 11 know that or not? If you don't, that's fine, Dr. 12 Lembke. I'm just trying to get an understanding of 13 your knowledge of those medications. 14 Well, you're wanting me to agree with 15 the statement that I'm reluctant to agree with, 16 because I would want to see more material. 17 Because you don't know, without seeing Q. 18 more material, you can't tell me; is that fair to 19 say? 20 Yes, that is fair to say. 21 Okay. And, you know, I just want to ask 22 a couple more on this point, because I think it's 23 important for us all to be clear on this. Right now sitting here today, you can't 24 25 testify as to how many fewer Nucynta prescriptions

137 1 Frye Hearing - Dr. Lembke 2 should have been written at any point in time, 3 correct? And, I mean, you know, how many should 4 5 have been written or should not have been written, you can't do that as you sit here today, correct? 6 7 I can't provide a specific number, no. 8 Q. The same is true for Exalgo? 9 Yes. Α 10 Q. Actiq? 11 Α Yes. 12 That's really true for any individual Q. 13 opioid medications that were sold or distributed or 14 dispensed by any Defendants in this case, correct? 15 Α Yes. 16 So let's talk more about the factors 17 that led to the number of prescriptions of opioids 18 in New York, generally in Suffolk and Nassau County 19 specifically. 20 You do agree that some doctors actually 21 prescribed opioids purely for their own personal 22 profit knowing that the individuals to whom they 23 were prescribing didn't really need the medications, 24 correct? 25 Α Yes.

138 1 Frye Hearing - Dr. Lembke 2 Doctors who prescribe opioids to people 3 knowing that they don't actually need the 4 medications, those doctors are commonly referred to as pill mill doctors, correct? 5 6 Α Yes. 7 They're not prescribing opioids because Q. 8 they believe the prescriptions are appropriate based 9 on anything anyone said, correct? 10 Yes. Α 11 Ο. That would include Defendants, they're not doing it based on anything the Defendants said 12 13 when they're out there committing those crimes, 14 correct? 15 Α Yes. 16 You do recognize that pill mills have 17 contributed to the opioid problem, correct? 18 Α Yes. 19 0. You're aware from at least lay-newspaper 20 articles, I believe you identified those before, that there have been pill mill doctors in New York, 21 22 right? 23 Α Yes. But you can't identify any specific pill 24 25 mills in New York State, correct?

139 1 Frye Hearing - Dr. Lembke 2 Correct. 3 So it's fair to say that you haven't 4 taken steps to measure or quantify the impact of 5 pill mills in causing opioid abuse, misuse or overdose, that wasn't part of your methodology, 6 7 correct? 8 Α That's incorrect. Okay. So let me go here. 9 Q. 10 I understand you published an article in 11 JAMA in 2016 with Jonathan Chen, an altered view of 12 2013 Medicaid data on opioid prescribing; are you 13 pausing because of that? 14 Α Yes. 15 Okay. So you know that -- and thanks 16 for that Medicare data -- you know that many pill 17 mill doctors actually run all cash businesses and 18 don't accept insurance, correct? 19 Α Yes. 20 And Medicare is a form of insurance, Q. 21 right? 22 Yes, it is. Yes. 23 Ο. I need an oral answer for the 24 transcript. Thanks, Dr. Lembke. 25 If pill mill doctors don't accept an

140 1 Frye Hearing - Dr. Lembke 2 insurance, their prescriptions wouldn't show up in 3 Medicare data, correct? 4 That's true. Α 5 So setting aside that in your 2006 JAMA article addressing Medicare data you conclude -- I'm 6 7 sorry, setting that aside, in that article you 8 conclude that the overall increase in opioid 9 prescribing was not primarily due to pill mill 10 doctors, correct? That's correct. 11 Α Okay. But the article doesn't address 12 Q. 13 the impact of pill mill prescribers on specific 14 patient outcomes, correct? 15 That is true. Α 16 Okay. And so nothing in the article Q. 17 directly quantifies the impact of prescriptions from 18 pill mill doctors on opioid abuse, misuse and overdose, fair? 19 20 That is fair. 21 Q. So let's talk about doctor shopping 22 next. 23 You agree that in some circumstances 24 patients themselves engage in manipulative behaviors 25 to obtain opioid medications from doctors, right?

141 1 Frye Hearing - Dr. Lembke 2 Α Yes. 3 And one example is you know of a patient Q. 4 manipulating a prescriber is when a patient goes to 5 multiple doctors to get the same or similar 6 prescriptions, right? 7 Α Yes. 8 Q. That's called doctor shopping; isn't it? 9 Yes, that's correct. A 10 To be clear, doctor shopping patients 11 essentially lie to their doctors to get more opioid prescriptions, correct? 12 13 Yes. A 14 You would agree that doctor shopping 15 often leads to improper prescriptions, right? 16 Α Yes. 17 You would agree that doctor shopping is 18 certainly part of the opioid abuse problem in New York, correct? 19 20 A Yes. 21 Well, one way to identify patients who 22 may be doctor shopping is to look at the data 23 maintained by a state's prescription drug monitoring 24 program, correct? 25 A Yes.

142 1 Frye Hearing - Dr. Lembke 2 You haven't looked at New York's 3 prescription drug monitoring program data in forming 4 your opinions in this case, correct? 5 That's correct. A 6 So that means you have not tried to 7 identify how many prescription opioid pills were 8 dispensed improperly as a result of doctor shopping, 9 fair? 10 Not by looking at the prescription drug 11 monitoring database. 12 Q. Well, it wasn't part of your methodology 13 in this case to actually measure the impact of 14 doctor shopping on the opioid abuse problem in New 15 York, correct? 16 That is correct. 17 So let's turn to opioid prescriptions Q. 18 that were illegally obtained without any 19 prescription at all. 20 Illegally obtaining opioid medications is often referred to as diversion, correct? 21 22 Α Yes. 23 Do you agree that sometimes prescription Q. 24 opioid pills are stolen from production facilities 25 during transit from production facilities or from

143 1 Frye Hearing - Dr. Lembke 2 retail pharmacies; is that right? 3 Α Yes. 4 Opioid pills that were diverted from Q. 5 production facilities, pharmacies or during transit 6 were not prescribed by a doctor, correct? 7 Α That is correct. 8 Q. You agree that this type of diversion 9 has been part of the opioid abuse problem in New 10 York, right? 11 Α Yes. 12 But you've not identified the number of 13 these incidents of diversion in forming your 14 causation opinion in this case; have you? 15 Α No. 16 You don't know what percentage of pills 17 are diverted from pharmacies or distributors; do 18 you? 19 A No. 20 In fact, you aren't even offering an 21 opinion on thefts from pharmacies or distributors in 22 this case, correct? 23 A Pardon me? I just want to make sure you weren't 24 25 offering an opinion on thefts from pharmacies or

144 1 Frye Hearing - Dr. Lembke 2 distributors in this case, correct? Right? 3 I can't answer that yes or no. Well, let me try, I'm going to rephrase 4 Q. it one more time and see if we can do this before we 5 go to the deposition. 6 Are you offering any opinion in this 7 8 case about any theft from a distributor in this 9 case? 10 I am offering opinion on diversion but 11 not specifically necessarily due to theft. 12 Okay. So I just really need you to Q. 13 focus on the question. That was my question. 14 You're not offering opinions on thefts 15 from pharmacies or distributors in this case, 16 correct? 17 A Correct. 18 And so it's fair to say that you've not 19 tried to quantify the impact of this type of 20 diversion on the opioid abuse crisis in New York; 21 it's not part of your methodology to quantify this 22 diversion, correct? 23 A That's correct. 24 One of your opinions in this case is 25 that increased supply of prescription opioids

145 1 Frye Hearing - Dr. Lembke 2 contributed to more individuals turning to heroin, 3 correct? 4 A Yes. 5 You agree that heroin and other illicitly manufactured opioids are supplied by drug 6 7 dealers and cartels, right? 8 A Yes. 9 Despite opining on what you believe was 10 the cause of heroin use, are you aware that there were many -- there were more heroin users in New 11 12 York City in the mid 1970s than in 2000? 13 A I haven't seen material to that effect, 14 but I'm happy to review, and if you have something 15 you want me to read. 16 So you're not aware of that; is that 17 your testimony? 18 A Yes. 19 Q. You're not aware of it, correct? 20 That's correct. A 21 Q. No part of your methodology involved 22 looking at the illicitly manufactured opioid market 23 in New York, correct? 24 That's correct. 25 So let's talk more about the things that

146 1 Frye Hearing - Dr. Lembke 2 may have harmed New York residents. 3 For example, do you believe that other 4 pharmaceutical companies that are not Defendants in this case contributed to opioid related harms in New 5 York, right? 6 7 I'm sorry, could you --A 8 Do you want me to say it again? 9 There are a lot of Defendants in this 10 case. Are you referring to a specific opioid 11 manufacturing --12 Right now as you sit here, do you 13 believe that other pharmaceutical companies, other 14 than the Defendants in this case, contributed to 15 opioid related harms in New York? 16 Yes. I mean, I, I look at it as a sort 17 of aggregate influence. Okay. And do you believe that doctors 18 19 contributed to opioid related harms in New York, 20 correct? 21 A Yes. 22 The FDA also contributed to the harms in 23 your opinion, correct? 24 A Yes. 25 Q. State Medical Boards and the Federation

147 1 Frye Hearing - Dr. Lembke 2 of State Medical Boards also contributed? 3 Α Yes. 4 Formulary and reimbursement policies of Q. 5 insurance companies and other third-party pairs also contributed in your opinion, correct? 6 7 Α Yes. 8 Q. So let's talk a little bit about each of 9 those. 10 Although you believe that there are 11 pharmaceutical companies, other than the Defendants 12 here, that bear some responsibility, you have not, 13 as part of your opinion in this case, quantified the 14 contribution of those non-Defendant pharmaceutical 15 companies; have you? 16 Α No. 17 When you say doctors bear some Q. 18 responsibility, that means all doctors, not just the pill mill doctors we discussed before, correct? 19 20 Α Yes. 21 Q. Then in the course of writing your book 22 you took notes reflecting that some of your 23 colleagues just want to keep the emergency moving by 24 getting patients out the door, right? 25 Α Yes.

148 1 Frye Hearing - Dr. Lembke 2 One of your trusted colleagues said, 3 Just give them what they want, right? Yes, she did. 4 Α 5 But you haven't quantified the extent to which doctors have contributed to the opioid crisis 6 7 in New York, correct? 8 Not to a specific number, no. 9 And as we discussed earlier, you think Q. 10 the FDA got it wrong when they approved opioid 11 medications for the treatment of chronic pain, 12 correct? I just want to make sure we're back on the 13 same page there. 14 Yes. Α 15 You also believe that the FDA 16 contributed to the prescription opioid epidemic by 17 making it easier, because I'm quoting from you, 18 making it easier for the pharmaceutical companies to 19 get FDA approval from new opioids coming on the 20 market; is that fair? 21 A Yes. 22 But there's no portion of your 23 methodology where you quantify the degree of 24 responsibility that should be allocated to FDA, 25 correct?

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149
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                      Frye Hearing - Dr. Lembke
 2
                    That's correct.
 3
                    So let's talk about some of the other
              Q.
       regulatory authorities.
 4
                    The New York Board of Medicine has the
 5
 6
       power to investigate and discipline doctors,
 7
       correct?
 8
              Α
                   Yes.
 9
                    It also imposes and overseas continuing
10
       medical education, or CME requirements; doesn't it?
11
              Α
                    Yes.
12
                    The New York Board of Medicine has the
               Q.
13
       authority to revoke medical licenses, correct?
14
                    Yes, it does.
15
                    If a doctor has his or her license
16
       revoked, the doctor can't prescribe opioid
17
       medications, correct?
18
              A Not lawfully.
                   So that's correct?
19
               Ο.
20
                    That's correct.
21
              Q.
                    And you agree that State Medical Boards,
22
       including the New York Board of Medicine,
23
       contributed to the opioid related harms, right?
24
              A
                   Yes.
25
                   But there's no part of your methodology
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1 150 Frye Hearing - Dr. Lembke 2 that quantifies the degree of responsibility that 3 should be allocated to the New York Board of Medicine, correct? 4 5 That's correct. A 6 You also think that model opioid 7 prescribing guidelines released by the Federation of 8 State Medical Boards made the opioid epidemic in New 9 York worse, right? 10 Yes. Α 11 So we've talked about a few government 12 regulatory agencies now but, again, to be clear, no 13 part of your methodology quantifies the 14 responsibility of any government or regulatory 15 entity, fair? 16 A Yes. 17 You also don't, as part of your -- as 18 part of your methodology in this case, you don't 19 quantify the extent to which managed care formulary 20 or other reimbursement policies caused or contributed to the opioid epidemic in New York, 21 22 correct? 23 That's correct. 24 Q. But you agree that managed care 25 formulary, other reimbursement policies did

151 1 Frye Hearing - Dr. Lembke 2 influence how medication is prescribed, right? 3 Α Yes. 4 Ο. So we've talked about a number of 5 individuals and entities and other factors that you believe contributed to the opioid crisis. 6 7 I'd ask Pam now to pull up Slide 2 and, 8 Mr. Asher, if you can, hand that out in court. This 9 one will be pretty quick. And if you can go ahead 10 and pull that up. 11 So, again, we've talked about a number of individuals and entities and other factors that 12 13 you believed contributed to the opioid crisis, and I 14 think they'll pop up on the screen here in a moment. 15 But to be clear, Dr. Lembke, you've not 16 specifically quantified the responsibility of any of 17 those factors; have you? 18 Not with a specific number, no. MS. STRONG: Okay. So we just don't 19 20 know. No further questions at this time, 21 your Honor. Thank you, Dr. Lembke. 22 THE WITNESS: You're welcome. 23 MR. PYSER: Your Honor, this is Steven 24 Pyser, I'm up next. Completely up to the 25 Court if you want to take a break now or you

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152
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                      Frye Hearing - Dr. Lembke
 2
               just want me to jump in.
 3
                    THE COURT: We're only working for an
               hour, so jump in.
 4
                    THE WITNESS: Mr. Pyser, can you improve
 5
 6
               your sound at all? The sound is not good on
 7
               my end, neither is my hearing.
 8
                    MR. PYSER: I will do my best to improve
 9
               my sound.
       CROSS-EXAMINATION
10
       MR. PYSER:
11
12
                   Dr. Lembke, I just want to start with
13
       some questions about your personal experience.
14
                    Have you ever worked for a
15
       pharmaceutical wholesale distributor?
16
              Α
                   No.
17
                    Do you have any training or expertise in
       supply chain management?
18
19
              Α
                   No.
20
                    Do you have any training or expertise in
       the distribution of controlled substances?
21
22
              Α
                    No.
23
               0.
                   Do you have any training or expertise in
24
       suspicious order monitoring for controlled
25
       substances?
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153 1 Frye Hearing - Dr. Lembke 2 Α No. Do you have any training or expertise in 3 4 a distributor's legal or regulatory responsibilities 5 concerning distribution of controlled substances? I am aware of the Controlled Substances 6 7 Act and its statement that every player in the supply chain has a responsibility to steward those 8 9 pills and to monitor suspicious orders. 10 Q. But you don't have any expertise in 11 distributors' legal or regulatory responsibilities 12 with respect to controlled substances; do you? 13 I don't have specific training beyond my 14 medical training and my medical experience, no. 15 Doctor, if you could, Dr. Lembke, do you 16 recall giving a deposition in the MDL case on April 17 24th 2019? 18 Yes, I recall giving that deposition. 19 Ο. Now, if you're able to control the 20 screen and bring up page 276, lines 5 through 9, and 21 in that deposition you were asked: "Do you have any 22 training or expertise in a distributor's legal or 23 regulatory responsibilities concerning the 24 distribution of controlled substances?" 25 And you answered: "No."

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154
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                      Frye Hearing - Dr. Lembke
 2
                    Is that the testimony you gave under
 3
       oath?
 4
              Α
                   Yes.
 5
                   Have you ever designed a suspicious
              Q.
       order monitoring program?
 6
 7
              Α
                   Yes.
 8
                    Dr. Lembke, you recall being deposed in
               Q.
 9
       this case in New York?
10
              Α
                   Yes.
11
                    MR. PYSER: Matt, if you can pull up the
               January 16th 2020 deposition transcript at
12
13
               page 170, line 24, through 171, line one.
14
                   You were asked: "Have you ever designed
15
       a suspicious order monitoring program?"
16
                   And you answered: "No."
17
                   Was that the testimony you gave under
18
       oath?
19
              Α
                   Yes.
20
                   Dr. Lembke, I'd like to ask you a little
21
       bit about something from your report on page 13 of
22
       your report in paragraph 2. If you have it handy I
       can read it to you as well. You wrote the
23
24
       following: "Opioid prescribing began to increase in
25
       the 1980s and became prolific in the 1990s and the
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155 1 Frye Hearing - Dr. Lembke 2 early part of the 21st century representing a 3 radical part on shift in the treatment of pain and 4 creating more access to opioids across the United 5 States." Did I read that correctly? 6 7 Α Yes. 8 And specifically, part of your opinion Q. 9 is that one of the ways that the paradigm shifted is 10 that opioids became a first line treatment for minor 11 pain conditions and chronic pain conditions; is that 12 right? 13 Α Yes. 14 As a result of that paradigm shifting in 15 the treatment of pain it was generally accepted 16 medical practice to prescribe opioids to patients 17 for chronic non-cancer pain, correct? 18 Α Yes. Another result of the paradigm shift was 19 Q. 20 that doctors prescribed opioids in higher doses as 21 part of the generally accepted medical practice; is 22 that right? 23 Α Yes. 24 And doctors, as part of generally 25 accepted medical practice, also prescribed opioids

156 1 Frye Hearing - Dr. Lembke 2 on a longer term basis, correct? 3 Α Yes. 4 Q. When we talk about generally accepted 5 medical practice, that means that's one that most 6 doctors at the time believed was the correct treatment option, correct? 7 8 A Yes. 9 When we talk about generally accepted 10 medical practice, that includes the State of New 11 York, as well as the rest of the country; is that 12 right? 13 Yes. A 14 I'm going to ask you a little bit about 15 something you were asked about this morning. Mr. 16 Hanly brought up something called the gateway 17 effect; do you remember that this morning? 18 A Yes. You never used that specific phrase, 19 Q. 20 gateway effect, or published that observation in any 21 peer review journal articles; have you? 22 Α No. 23 Ο. "No," you have not? 24 I have not published that in any peer 25 review journal articles. I have used that in other

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157
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                      Frye Hearing - Dr. Lembke
 2
       contexts.
 3
                   Before you were hired as an expert
       witness in this case Mr. Hanly brought up a book
 4
 5
       that you wrote, Drug Dealer, M.D.
 6
              Α
                    Yes.
 7
                    And he noted that that book was from
              Q.
 8
       2016, right?
 9
              A
                   Yes.
10
               Ο.
                   You worked hard on the book?
11
              A
                   Yes.
12
                   Had to get your facts right?
              Q.
13
                   Pardon me?
              A
14
                    You tried to get your facts right as to
15
       what you included in the book?
16
                    Yes, I did.
17
                    So in that book, before you were hired
18
       by the Plaintiffs' lawyers here, you had concluded
       that the relationship between doctors' prescribing
19
20
       patterns and the initiation of heroin use remains
       unclear; is that right?
21
22
              Α
                    Yes.
23
                    In making that finding you cited to the
24
       New England Journal of Medicine, correct?
25
                    Yes. But I believe I cited the wrong
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158 1 Frye Hearing - Dr. Lembke 2 citation. 3 Do you know what the right citation is? I can't recall it now, but I had 4 5 intended to use something other than what I ended up using, which was a later publication. 6 7 But the statement itself was included in Q. your book, right? 8 9 A Yes. 10 That is the relationship between 11 doctors' prescribing patterns in the initiation of 12 heroin use remains unclear? 13 Yes. I had a very specific idea in mind 14 with that I didn't clarify, but I could, if 15 you'd like me to. 16 Dr. Lembke, did you or did you not write 17 that the relationship between doctors' prescribing 18 patterns and the initiation of heroin use remains unclear? 19 20 A Yes. 21 I want to shift gears a little bit 22 towards some of the marketing issues that you were 23 asked about this morning. 24 Α Okay. 25 Q. Can you identify any false or misleading

159 1 Frye Hearing - Dr. Lembke 2 claim about opioids made by a pharmaceutical 3 distributor that's been named as a Defendant in this 4 case? 5 Yes, I can. A 6 Well, Dr. Lembke, I'd like to direct you 7 to your New York deposition at page 70, line 14, and 8 you were asked at the time the same exact question I 9 just asked you, and that was can you identify any 10 false or misleading claim about opioids that was 11 made by a pharmaceutical distributor that has been 12 named as a Defendant in this case, and you answered 13 that question no. 14 Is that your testimony under oath? 15 Yes. That was my testimony. Α 16 And it was true at the time? Q. 17 At the time it was true. Α 18 Q. That testimony was given after you 19 submitted your report in New York State, correct? 20 Α Yes. 21 You've not filed a supplemental report 22 in New York State, the report you filed is the only 23 report we have from you in New York State; is that 24 right? 25 Α That's correct.

160 1 Frye Hearing - Dr. Lembke 2 On page 6 of that report, I want to 3 refer you to opinion 3. At opinion 3 you wrote: 4 "The pharmaceutical opioid industry contributed to 5 the paradigm shift in opioid prescribing through promotional materials and its use and manipulation 6 7 of key opinion leaders, continuing medical education 8 courses, professional medical societies, Federation 9 of State Medical Boards, and the Joint Commission to 10 convey misleading messages about the safety and effect -- and efficacy of prescription opioids." 11 12 Is that a correct reading of your 13 opinion 3? 14 Α Yes. 15 So I would like to break that down and 16 just talk about the role of distributors or lack of 17 role of distributors as to each of those, okay? 18 A Sure. 19 Ο. When you say the pharmaceutical opioid 20 industry used and manipulated key opinion leaders, 21 you're not talking about distributors, correct? 22 That's correct. 23 When you say the pharmaceutical opioid industry used and manipulated continuing medical 24 25 educational courses, you're not talking about

161 1 Frye Hearing - Dr. Lembke 2 distributors? 3 Α No. 4 "No," you're not talking about 5 distributors? 6 I'm not talking about distributors, no. 7 When you say the pharmaceutical opioid 8 industry used and manipulated professional medical 9 societies, you're not talking about distributors 10 there either; are you? 11 Α No. 12 When you say the pharmaceutical opioid industry used and manipulated the Federation of 13 14 State Medical Boards and the Joint Commission there, 15 you're not talking about distributors either; are 16 you? 17 A No. 18 THE COURT: You know, when a question 19 calls for a yes or no, it might be a 20 universal recommendation to have every 21 witness watch the movie My Cousin Vinnie, 22 when he is asked originally by a deputy he's 23 told, You shot the sheriff. He says, I shot 24 the sheriff. Then when the deputy gets on 25 the stand, what did he say? He says, I shot

162 1 Frye Hearing - Dr. Lembke 2 the sheriff. 3 So when you say like no to that last 4 question, you really mean something else. 5 You've been doing a good job. You've been saying, No, I do not, or yes, I do. So for 6 7 purposes of the record just --THE WITNESS: Okay. Thank you. I've 8 9 been worried to say more than yes or no. 10 THE COURT: All right. Am I the only 11 person in this building that saw My Cousin Vinnie? Just curious. Let's go. 12 13 Let's try to clean that up, if we could, 14 because I think we understood what you were saying. 15 For each of those last five questions 16 that I asked you about distributors, your reference 17 there did not include any action by distributors; is 18 that correct? 19 My reference there does not include any action by distributors, that is correct. 20 21 MR. PYSER: Thank you, Dr. Lembke, and 22 thank you, your Honor, as well for helping 23 clean up. 24 THE COURT: Is Mr. Carter -- he was 25 referenced in a September 2nd letter as being

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163
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                     Frye Hearing - Dr. Lembke
 2
               an examiner; is that you, sir?
 3
                   MR. CARTER: Yes, it is.
 4
                   THE COURT: How are you?
                   MR. CARTER: I'm doing well. I have
 5
               about ten minutes of questions, so if you
 6
 7
               would like me to proceed now, I can.
 8
                   MR. PYSER: I'm sorry, your Honor, I
 9
               wasn't quite done.
                    THE COURT: I heard you say "thank you,"
10
11
               so that was my queue...
12
                   MR. PYSER: That was to my Cousin Vinnie
13
               reference there.
14
                    THE COURT: Mr. Carter, sit down and
15
              enjoy the show.
16
                   Go ahead.
17
                   All right. As part of your methodology
              Q.
18
       in this case, before serving your report, Dr.
       Lembke, did you consider any documents produced by
19
       Cardinal Health?
20
21
              A
                  No.
22
                   Okay. And same question for
23
       AmerisourceBergen.
24
                   Before serving your report did you
25
       consider any documents produced by
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164 1 Frye Hearing - Dr. Lembke 2 AmerisourceBergen? 3 Α No. 4 As to McKesson Corporation, other than a Q. 5 single document that was brought up at your 6 deposition, the Nucynta savings card, other than 7 that single document, did you consider any other 8 documents produced by McKesson? 9 Not before submitting my report, no. 10 As to that Nucynta document, you 11 describe that document as a coupon or a savings 12 card; is that right? 13 That's correct, yes. 14 So just talking generally about such 15 documents, a savings card that offers co-pay 16 assistance for the cost of prescriptions, you 17 understand that when a patient has a card for co-pay 18 assistance, the patient still needs to obtain a prescription before they can obtain the medication; 19 20 is that right? 21 Yes, of course I understand that the 22 patient still needs a prescription. 23 0. And if a doctor has written a 24 prescription, that means the doctor has made a 25 decision that that particular medication is the

165 1 Frye Hearing - Dr. Lembke 2 appropriate medication for treatment of pain in that 3 patient; is that right? 4 That's harder for me to answer yes or Α 5 no. MR. PYSER: Bear with me one second, 6 7 doctor. 8 So presumably when a doctor has made a 9 decision that a medication like Nucynta is an 10 appropriate medication for acute treatment of pain 11 in the patient and issues a prescription, that doctor has made a decision based on their own 12 medical judgment, correct? 13 14 Not entirely. There are other 15 influences that are at play in a doctor's decision. 16 For example, if a drug rep came by and gave them a 17 bunch of, you know, Nucynta saving cards and asked 18 them to give them to patients, that would influence that decision. 19 20 But the ultimate decision rather to Q. 21 prescribe or not, that decision rests with the 22 doctor, correct? 23 A In the most superficial sense, yes. 24 So you don't believe doctors have 25 independent judgment that they exercise with their

166 1 Frye Hearing - Dr. Lembke 2 patients? 3 Yes. But they can only base their 4 judgment on the knowledge that they have, and if 5 that's faulty knowledge, they can't exercise good 6 judgment. 7 Do doctors have an obligation to educate Q. 8 themselves? 9 Yes, they do. A 10 As part of your methodology in this 11 case, did you conduct your own analysis of psychiatric data, such as the ARCOS data, to reach a 12 13 conclusion about distribution of opioids? 14 No. Α 15 As part of your report and your work 16 here, you're not able to point to any particular 17 distribution of a particular medication and say that 18 the prescriptions filled by a pharmacy as a result 19 of that distribution were medically unnecessary; you can't get to that level of detail, can you? 20 No, not to that level of detail. 21 Α 22 As part of your methodology you're not 23 offering an opinion as to the appropriate number of 24 pills that should have been distributed into the 25 State of New York; are you?

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167

Frye Hearing - Dr. Lembke 2 Probably I have offered an opinion on 3 that topic, and I have stated before it should be at least four- or fivefold less than current 4 5 prescribing. 6 Q. Beyond that four- or fivefold estimate, 7 you're not putting forth a particular number of 8 pills that you believe should have been distributed 9 in the State of New York for particular medications; 10 are you? 11 Not a specific number, no. 12 Q. Same thing for Suffolk County and Nassau 13 County. You're not offering an opinion as to the 14 specific number of opioid medications that should 15 have been distributed into Nassau or Suffolk County; 16 are you? 17 I'm offering the same opinion for those 18 counties as for the State of New York, as I said before. 19 20 I'd like to draw your attention to 21 another line in your report at page 18 this time. 22 Do you have that in front of you? 23 Α Yes. Let me just turn to it. 24 This is something that was covered a 25 little bit earlier. It's toward the top of the

168 1 Frye Hearing - Dr. Lembke 2 page, the Roman number III. It says: "The history 3 of prescription opioid marketing distribution throughout the United States means that it's highly 4 5 probable that prescribing rates in those counties 6 were far lower in the 1990s before such marketing 7 and distribution campaigns were implemented by the 8 Defendants." 9 Do you see that? 10 Yes. 11 Okay. I want to just ask you a couple 12 of questions about the basis for that statement. 13 Can you point to any report, article or 14 analysis which concluded that the rate at which 15 healthcare providers prescribed opioids increased 16 because pharmaceutical distributors shift 17 prescription opioids to pharmacies? 18 There are, as in my report, 19 authoritative bodies who have weighed in on this, 20 and I agree with them that the distribution of 21 opioid pain pills is what contributed to the 22 increased access to prescription pain pills, and 23 access is a huge risk factor for misuse and 24 addiction. 25 Q. I think maybe we're talking past each

Frye Hearing - Dr. Lembke 169

2 other.

What I'm asking you is whether there's a report, article or analysis which concluded the rate at which the healthcare providers prescribed, the prescribing decisions, are you aware of any analysis which concluded that healthcare providers' decisions to prescribe increased because pharmaceutical distributors shift prescription medicine to pharmacies?

A Well, I take it, as a matter of common sense, that you can't get the pills to the patients unless they're distributed to the pharmacies.

Q. I'm not asking about getting it to the patients, though, doctor. What I'm asking you is about the healthcare providers' decision to write a prescription and whether you believe that the simple fact that a distributor shifted medication to a pharmacy caused a doctor to alter their medical judgment and write more prescription opioids?

A That's hard for me to answer yes or no because I -- my sense is it's a feed forward cycle. The more that were shift, the more patients became dependent on them, the more that doctors were in a position to have to continue to prescribe them.

Frye Hearing - Dr. Lembke

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170

2 So sitting here today, can you point me 3 to any academic article or study that found that 4 doctors prescribing was based on the fact that distributors shift pills to pharmacies? 5 Yeah, I'm not sure I really understand 6 7 the point of the question, so it's hard for me to 8 answer it. 9 Q. You can answer the question whether you 10 understand the point of it or not. 11 So the question is: Are you aware of 12 any study in which the authors of the study found 13 that doctors prescribing increased because of the 14 shifting by distributors of medicine to a pharmacy? 15 The increased distribution meant that 16 these communities had more opioids, which meant that 17 the general population had more access, either 18 through legitimate prescription or otherwise, which then created the need for ongoing prescribing. 19 So I do think that it begins with the 20 21 access and not with necessarily it's a feed forward 22 cycle. Doctor, again, you're still not 23 Q. 24 answering the question. 25 The question is pointed at doctors'

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171
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                      Frye Hearing - Dr. Lembke
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       prescribing decisions, healthcare providers'
 3
       prescribing decisions, and the question is: Can you
 4
       point me to a study in which the authors found that
       doctors prescribing increased because distributors
 5
       shift medication to a pharmacy?
 6
 7
                    THE COURT: Just a yes or no, doctor.
 8
              Α
                    No.
 9
                    THE COURT: Next question.
10
                   Dr. Lembke, I want to return to
11
       something you said this morning actually, this was
12
       point 2 of your summary.
13
                    And, Matt, if you could bring up point 2
14
       of the summary.
15
                    So point 2 was opioid prescribing grows
16
       fourfold starting in the 1990s, which increased the
17
       supply of potent and deadly opioids in the general
18
       population, including New York.
19
                    That was your point this morning,
20
       correct?
21
              Α
                   Yes.
22
                    And you were trying to be accurate when
23
       you testified this morning?
24
              Α
                    Yes.
25
                    You told the truth in your testimony?
```

172 1 Frye Hearing - Dr. Lembke 2 Α Yes. 3 And here what you've said is that the Q. 4 prescribing increased the supply of opioids, 5 correct? 6 Α Yes. 7 MR. PYSER: You can take that down, 8 Matt. 9 Is it true that without a prescription, 10 medication that shifts to a pharmacy will stay on the shelves of the pharmacy; is that right, doctor? 11 12 Yes. A 13 Did you interview any pharmacists in the 14 State of New York for purposes of forming your 15 opinions in this case? 16 Α No. 17 Can you identify for the Court a 18 specific doctor in Nassau or Suffolk County who prescribed more opioids because opioids were 19 20 available at pharmacies? 21 A No. 22 Can you identify a specific doctor in 23 the State of New York who prescribed more opioids 24 because opioids were available at pharmacies? 25 Α No.

173 1 Frye Hearing - Dr. Lembke 2 As part of your professional practice as 3 a doctor, before you prescribe a patient a 4 medication do you regularly call the pharmacies in your area from which the patient could fill that 5 prescription to see if the pharmacies have the 6 7 medication you want to prescribe? 8 Α Not usually. 9 Dr. Lembke, do you agree with me that Q. 10 the large majority of opioid prescriptions written in New York were written for what the doctor who 11 12 wrote them thought was a legitimate medical purpose? 13 Yes. Α 14 The number of pills of a particular 15 medicine that a pharmacy dispenses is dependent on 16 the prescriptions written by healthcare 17 professionals, true? 18 Α Yes. 19 Q. Doctors have a responsibility to ensure 20 that the medications they prescribe for patients are 21 for a legitimate medical purpose, correct? 22 Α Yes. 23 Q. Pharmacists can't dispense opioids 24 without a prescription, right? 25 Α Yes.

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174
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                     Frye Hearing - Dr. Lembke
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                   MR. PYSER: No further questions, your
 3
              Honor.
 4
                   THE COURT: Are you sure?
 5
                   MR. PYSER: I'm sure this time.
 6
                   THE COURT: Okay. We'll take 15
 7
              minutes. Thank you.
 8
                    (WHEREUPON, a short recess was taken.)
 9
                   THE COURT: Okay. I don't see the
10
              witness.
                   Welcome back.
11
12
                   THE WITNESS: Thank you.
13
                   THE COURT: Of course you're still under
14
              oath; you know that, correct?
15
                   THE WITNESS: What is that?
16
                   THE COURT: I said of course you're
17
              still under oath; you know that?
18
                   THE WITNESS: Yes, thank you.
19
                   THE COURT: Mr. Carter, you're up.
20
                   MR. CARTER: Thank you, your Honor.
21
       EXAMINATION BY
22
       MR. CARTER:
23
              Q. Good afternoon, Dr. Lembke. We met at
24
       your deposition. My name is Ed Carter, and I
25
       represent Walmart, okay?
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175 1 Frye Hearing - Dr. Lembke 2 Α Yes. 3 I have just a few questions this 4 afternoon, so hopefully it will move quickly. 5 You were asked some questions earlier 6 today about some of the sources and individuals that 7 you consulted in preparation for your report as part 8 of your methodology, I want to start up to that 9 topic in connection with your work in this case. 10 You did not interview any employees of 11 Nassau County or Suffolk County; did you? 12 Α No. 13 You did not interview any law 14 enforcement officers in the two counties; did you? 15 Α No. 16 Q. You testified earlier about addiction 17 and specifically opioid use disorder. 18 You cannot tell us which specific individuals or cases have opioid use disorder 19 20 diagnosis in Nassau County; can you? 21 Α No. 22 Q. Same question for Suffolk County? 23 Α Same answer for Suffolk County. 24 Likewise, you do not know the number of 0. 25 cases where a decedent in that Nassau County or

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176
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                      Frye Hearing - Dr. Lembke
 2
       Suffolk County was diagnosed with an opioid use
 3
       disorder; do you?
 4
              Α
                   No.
                    THE COURT: You mean, yes, that is
 5
               correct?
 6
 7
                   THE WITNESS: That is correct.
 8
                   MR. CARTER: Thank you, your Honor.
 9
                   Dr. Lembke, that is not something that
              Q.
10
       you calculated as part of your methodology in this
11
       case; is it?
12
              A No, that is not something that I have
13
       calculated.
14
                  Likewise, you have not studied the
15
       overdose death records from either counties to
16
       determine whether the individuals had a diagnosis of
17
       an opioid use disorder; did you?
18
                   I did not look at whether they had a
19
       diagnosis of opioid use disorder.
20
                    The methodology that you utilized in
       this case is not a methodology that is generally
21
22
       accepted by psychiatrists or diagnosee in opioid use
23
       disorder in a specific individual; is it?
24
                   Can you rephrase the question.
25
              Q.
                   Sure.
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177 1 Frye Hearing - Dr. Lembke 2 The methodology you employed in this 3 case to reach the nine opinions that were on the 4 first slide that you showed today on direct, that is 5 not an accepted methodology for diagnosing a patient in a clinical setting with an opioid use disorder; 6 7 is it? Well, as part of forming my opinion I 8 9 did use the methods for diagnosing opioid use 10 disorder in individual patients, and my opinion is informed both by my clinical professional experience 11 and the research that I did. So I did use that 12 13 methodology. 14 I couldn't form an opinion about this 15 topic unless I was able to apply the DSM criteria to 16 diagnosing an opioid use disorder. 17 Maybe we're talking about two separate Q. 18 things. You did not apply the DSM criteria to 19 20 any patient in Nassau or Suffolk County or New York 21 State; did you? 22 No, I did not apply the DSM criteria to 23 any specific patient, as you said. 24 Q. Thank you. 25 Now, if you were evaluating a patient in

178 1 Frye Hearing - Dr. Lembke 2 a clinical setting for a possible opioid use 3 disorder diagnosis, you would consider the full 4 context of information available to you in that clinical setting; wouldn't you? 5 6 Α Yes. 7 For example, you would consider the Q. 8 patient's medical history, including their mental 9 health history, and any information regarding their 10 history of substance abuse, fair? 11 Α Yes. 12 Q. In a clinical setting you have never 13 made a diagnosis of an opioid use disorder by 14 disregarding that context and that clinical 15 indication and instead relying exclusively on 16 aggregate epidemiological statistics, that's 17 something you've never done in a clinical setting; 18 is it? 19 A No. 20 As part of your methodology you did not Q. evaluate specific cases or specific individuals in 21 22 Nassau County or Suffolk County to determine whether 23 they ever had a prescription for an opioid 24 medication that was made, distributed or dispensed 25 by one of the Defendants; did you?

179 1 Frye Hearing - Dr. Lembke 2 Α No. 3 As part of your work in this case, you described error in some of the documents that you 4 5 considered, I want to follow-up on that topic, all right? 6 7 Α Okay. 8 Did you consider any documents produced 9 from the files of a pharmacy Defendant in preparing 10 your report for this case? 11 Yes. -- oh, pharmacy Defendant, sorry --12 well, after submitting this report I have reviewed 13 some files like that, but not before submitting this 14 report. 15 Not for the Defendants in the New York Q. 16 litigation, correct? 17 Correct. A 18 Okay. And just to be clear, make sure 19 we have it for the record, in preparing your report 20 for this case, did you consider any documents 21 produced from the files of a pharmacy Defendant? 22 No, I did not consider documents 23 produced from the files of a pharmacy Defendant for 24 this report. 25 Q. As part of your work in this case, did

180 1 Frye Hearing - Dr. Lembke 2 you review the testimony or depositions of any 3 employees or witnesses from a pharmacy Defendant? 4 Α No. 5 As part of your methodology in this 6 case, did you study the details of the conduct of 7 any pharmacy Defendant as it pertains to Nassau 8 County or Suffolk County? 9 Α No. 10 Using Walmart, my client, as an example, 11 did you study the details of Walmart distribution policies for controlled substances in Nassau or 12 13 Suffolk County? 14 Α No. 15 Did you study the details of the 16 processes that Walmart put in place to empower its 17 pharmacists to exercise their professional 18 responsibility to evaluate prescriptions? 19 Α No. 20 Did you review any Walmart policies to 21 identify a specific policy that you believe should 22 have been changed? 23 Α No. 24 Did you identify any specific orders for 25 opioids that a Walmart pharmacy placed that Walmart

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                      Frye Hearing - Dr. Lembke
 2
       should have handled differently from a distribution
 3
       perspective?
 4
              A
                   No.
 5
                   Did you identify any specific
 6
       prescriptions that Walmart should not have filled at
 7
       its pharmacies?
 8
              A
                  No.
 9
                   And if I asked you all of those
10
       questions for the other three pharmacy Defendants,
11
       would your answers be the same?
12
                   My answers would be the same.
13
                   Now I want to switch gears. You talked
              Q.
       about marketing earlier. I want to ask you about
14
15
       that.
16
                    It's true that the pharmacy Defendants
17
       never marketed opioids; did they?
                   MR. HANLY: Objection to the form.
18
                    THE COURT: Time out. There's an
19
20
               objection. Mr. Carter, rephrase the
21
               question. Perhaps you should share your
22
               concept of marketing with the witness so
23
              we're on the same page.
24
                   MR. CARTER: Sure.
25
              Q.
                   In your report, when you offer opinions
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182 1 Frye Hearing - Dr. Lembke 2 regarding marketing, have you offered any marketing 3 opinions that pertain to the pharmacy Defendants? 4 Not in my report. 5 Okay. And as far as you're aware, did Q. the pharmacy Defendants ever market opioids? 6 7 Α Yes. 8 Q. Okay. I'd like to show you your 9 deposition. It's the same one from the New York 10 case that you looked at earlier today. Bear with me 11 a moment while I get the screen. 12 THE COURT: What's the page and line, 13 please. 14 MR. CARTER: The page and line is going 15 to be one 27, line 24, and I'm just trying to 16 get control so that I can present. 17 THE COURT: Okay. 18 Q. Are you able to see my screen with your 19 transcript up, Dr. Lembke? Yes, I do. I see it. 20 21 Q. All right. So I want to direct your 22 attention to the last page -- or, excuse me, the 23 last line, down here at the bottom of the page. "Are you aware of any marketing of 24 25 opioids conducted by any of the retail chain

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183
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                      Frye Hearing - Dr. Lembke
 2
       pharmacy Defendants?"
                    And it goes to the next page.
 3
                    "ANSWER: No."
 4
 5
                    Do you see that?
 6
                    Yes, I do.
              Α
 7
                    That's the testimony you provided under
              Q.
       oath in your deposition in this case, correct?
 8
 9
                    Yes. That was true at the time.
              Α
10
                    That was true for purposes of your
11
       report in this case, correct?
12
              Α
                    Yes.
13
                    Since then you've never supplemented
14
       your report or put the pharmacy Defendants or anyone
15
       else on notice that there's been any change or
16
       errata to your sworn deposition testimony, true?
17
                    I can't speak to what Plaintiffs'
18
       counsel has notified Defendants about, but I have
       reviewed other records since then, which has led to
19
20
       my changing my opinion on this deposition question.
                   But whatever your opinion is, that's not
21
22
       something you shared with anyone in New York, to
23
       your knowledge, true?
24
                   Not in my report.
25
                    You don't plan on testifying at trial in
```

184 1 Frye Hearing - Dr. Lembke 2 this case with respect to marketing by pharmacy 3 Defendants, true? 4 If I'm asked a question about whether or Α 5 not pharmacies ever marketed specific products, to answer that truthfully I will have to say that I am 6 7 aware of that having happened. 8 Q. We can deal with the representations of 9 the various pleadings, I won't belabor the point, 10 but in these subsequent materials that you reviewed, 11 unrelated to New York and not in your New York 12 report, do any of them relate to controlled 13 substance prescription opioids? 14 Yes. Α 15 Do any of them relate to marketing in 16 Nassau or Suffolk County? 17 Possibly, but there is no geographic 18 specific information that I'm recalling. 19 Ο. All right. And likewise, you cannot 20 identify any claim about opioids made by a pharmacy 21 Defendant that you allege was false or misleading; 22 can you? 23 Again, yes, I can, because I've reviewed 24 other materials since the deposition and since my 25 report.

185 1 Frye Hearing - Dr. Lembke 2 Let me pull up -- I'd like to direct you 3 to page 127 of your deposition. Lines 20 to 23. "Can you identify any false or 4 5 misleading claim about opioids made by one of the retail pharmacy Defendants in this case? 6 ANSWER: No." 7 8 Do you see that? 9 Yes, I do see that. Α 10 That was the testimony that you provided 0. 11 under oath in your deposition in January, correct? 12 Yes, that was the testimony I provided 13 then. 14 Between January and today, September Q. 15 9th, have you issued an errata to correct your 16 testimony in the New York case? 17 Α No. 18 Q. Have you issued a supplemental report to 19 update your opinions in this case on that topic? 20 Α No. 21 In terms of the nine opinions that were 22 listed on your first slide -- sorry, I'm having 23 trouble with the mouse, your Honor, excuse my technical novice. 24 25 Back to my question, doctor.

186 1 Frye Hearing - Dr. Lembke 2 The nine opinions that are listed on 3 Slide 1 that you showed today, none of them relate 4 to any marketing statements or allegedly misleading statements by the pharmacy Defendants, true? 5 In my report I refer to the 6 7 pharmaceutical opioid industry and in that I include 8 the pharmacies. 9 So is it your testimony that one of the 10 nine opinions on Slide 1 references pharmacy 11 Defendants making marketing statements? Yes. 12 Α 13 All right. I'd like to pull up Slide 1. Q. 14 Which one of these statements references 15 a pharmacy Defendant marketing opioids? 16 THE COURT: It's not on the screen. 17 MR. CARTER: That makes it harder, so 18 let me --19 THE COURT: Can somebody help out? 20 MR. CARTER: Your Honor, I relied on the shared Adobe, not the entire screen. So one 21 22 second, I think I can fix this I believe. 23 THE COURT: Halfway there, Mr. Carter. 24 You got the other one down. 25 MR. CARTER: Okay.

187 1 Frye Hearing - Dr. Lembke 2 MR. CARTER: Is this one up now? 3 MR. HANLY: Yes. 4 All right. So, Dr. Lembke, you do not Q. 5 have any references in Slide 1 to a pharmacy Defendant issuing a marketing statement, correct? 6 7 Α That's true. 8 Q. Thank you. 9 And, in fact, if we go through your 10 entire report for the New York case, it's also true 11 that you do not mention any pharmacy Defendant by name at any location in your report, true? 12 13 True. Α 14 Likewise, your report does not identify 15 any pharmacy Defendant as having, to a reasonable 16 degree of medical and scientific certainty, violated 17 a regulation or duty of care in Nassau County or 18 Suffolk County, correct, that's not anywhere in your 19 report; is it? 20 Correct. That's not in my report. Bottom line is, because you did not 21 Q. 22 analyze or study the conduct of the pharmacy 23 Defendants in Nassau and Suffolk County in preparation of your report, this case, you'll not be 24 25 offering any opinion at trial regarding the specific

188 1 Frye Hearing - Dr. Lembke 2 conduct of a pharmacy Defendant in Nassau or Suffolk 3 County; do you agree with that? 4 Again, if I'm asked under oath to testify about the role of the pharmacies, I will 5 offer an opinion that's based on additional material 6 7 I've seen. 8 Q. But sitting here today, in terms of 9 what's in your report, none of those opinions are 10 articulated with specificity in your report for this 11 case, true? That's true. 12 Α 13 Last topic. On direct you expressed an Q. 14 opinion that doctors were duped; do you recall that? 15 Α Yes. 16 I would like to follow-up on that. 17 If doctors were duped to the point where 18 well-intentioned doctors genuinely believed that 19 they were exercising appropriate medical judgment in 20 prescribing opioids, you agree that the same 21 phenomenon would also apply to pharmacists, fair? 22 Yes. Possibly. 23 In terms of your background and 0. 24 training, you are not familiar with the specific 25 licensing requirements for pharmacists in New York;

189 1 Frye Hearing - Dr. Lembke 2 are you? 3 Α No. 4 You don't know what kind of training Q. 5 pharmacists in New York go through; do you? 6 No, I don't. 7 The education and training of Q. 8 pharmacists is not a topic that you've studied in 9 connection for this case; is that correct? 10 That is correct. You will not be offering an opinion at 11 trial regarding what pharmacists in Nassau or 12 13 Suffolk understood or believed about the risks and 14 benefits of opioid medications; will you? 15 Α No. 16 You will not offer an opinion, starting 17 from the specific pharmacists in those two counties, 18 acted unreasonably in filling any specific prescription; will you? 19 20 Not for any specific prescription, no. 21 Q. My final question. As part of your 22 methodology in this case, you have not identified 23 any particular case where specific prescriptions for 24 opioids should not have been filled by a pharmacist 25 acting in good faith; have you?

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190
 1
                     Frye Hearing - Dr. Lembke
 2
                   Not any specific case, no.
 3
                   MR. CARTER: Those are all the questions
 4
               I have for you. Thank you.
 5
                    THE WITNESS: You're welcome.
 6
                    THE COURT: Mr. Hanly, redirect.
 7
                   MR. HANLY: Thank you, your Honor.
 8
       REDIRECT EXAMINATION
 9
       MR. HANLY:
10
                   MR. HANLY: Could we take down that
11
              slide, please.
              Q. Dr. Lembke --
12
13
              A
                   Yes.
14
              Q. -- I'm going to ask you a few questions
15
       on redirect examination.
16
                   First of all, just to clarify, and
17
       perhaps I misheard or misunderstood one of the
18
       questions asked by Mr. Carter just a few minutes
       ago, the nine opinions that you hold and would give
19
20
       in this case at trial, if permitted to do so by
21
       Justice Garguilo, have nothing to do with the
22
       diagnosis or the diagnostic criteria for addiction,
23
       true?
24
                   Well, yes and no. I mean, I, I must be
25
       familiar with those diagnostic criteria in order to
```

that right?

1 Frye Hearing - Dr. Lembke 191
2 have a working background knowledge of this problem
3 more broadly.
4 Q. But there's nothing referred to in the
5 nine opinions concerning any diagnostic criteria; is

A Well, under opinion one addiction is a chronic illness. I do describe in brief what the diagnostic criterion are for diagnosing an opioid use disorder.

Q. There was a suggestion -- withdrawn.

Is there any peer reviewed publication, guidelines, criteria, mandates, requirements of any sort that provide it is necessary to do widespread surveys of physicians in order to reach opinions, for example, about the relationship between physicians' prescribing habits and, and consequent harms, is there any set of rules that say you have to do a survey of 10 or 100 or a thousand or a million doctors in order to have a sound basis upon which to make conclusions concerning the relationship, for example, between prescribing and ultimate harms?

A No, there are no mandated requirements or recommended requirements to that effect.

192 1 Frye Hearing - Dr. Lembke 2 You were asked a number of questions by 3 Miss Strong concerning whether you are able to quantify the relative roles of different players, if 4 5 you will, in the opioid saga in respect of the 6 opioid epidemic, correct? 7 Α Yes. 8 Q. All right. And -- but you already 9 testified, before she asked you that litany of 10 questions about your ability to give percentages, 11 that you are not an econometrician, right? That's correct. 12 Α 13 You don't have any training in 14 econometrics? 15 That's correct. A 16 And your engagement in this case by the 17 lawyers for the communities had nothing to do with 18 you providing percentages of relative liability, 19 correct? 20 That's correct. A 21 Now, you testified, when asked a number 22 of questions by Miss Strong about surveys, you answered on several occasions that you had done 23 24 qualitative interviews; do you remember that? 25 Α Yes.

193 1 Frye Hearing - Dr. Lembke 2 In fact, you did such interviews; is 3 that correct? 4 Yes, I did. Α 5 There was a suggestion that, that was not disclosed and didn't appear anywhere in your 6 7 report, correct? 8 Α That was suggested, yes. 9 Right. Do you have your report in the Q. 10 New York litigation handy? Yes, I do. 11 Α 12 Q. Could you turn to page 5 of that report. 13 Yes, I'm at page 5. A 14 Right. And up at the top is paragraph Q. 15 number 23; do you see that? 16 Yes. Α 17 And I'm just going to read the beginning Q. 18 part of that paragraph. You wrote: "In forming the opinions expressed in this report, I have relied on 19 20 my medical training, more than 20 years of clinical 21 experience, and my own research on opioid 22 prescribing. 23 My research began circa 2001 and has been multimodal. I have done qualitative interviews 24 25 with patients, providers and others in the

194 1 Frye Hearing - Dr. Lembke 2 healthcare field on questions related to opioid 3 prescribing? 4 Did I read that correctly? 5 Α Yes. 6 That is, in fact, true; is it not? Q. 7 Α Yes. 8 That while you did not do surveys of 10 Q. or 100 or a thousand or a million doctors or 9 10 patients, you did selective qualitative interviews of that very same population? 11 12 Α Yes. 13 Now, Miss Strong also took you through a 14 number of risk factors for the development of opioid 15 use disorder or addiction, right? 16 Α Yes. 17 But I don't recall her calling to your 18 attention anything about dose and duration of the administration of opioids as constituting a risk 19 20 factor. 21 My question to you is: Are dose and 22 duration of the administration of these kinds of 23 drugs a risk factor for the development of an 24 addiction? 25 A Yes. The science showed that those are

1 195 Frye Hearing - Dr. Lembke 2 important risk factors for the development of 3 addiction. 4 Q. Do you accept that science? 5 Yes, I do. A Okay. Is that concept generally 6 7 accepted, that dose and duration -- in other words, 8 how strong the pills are or how many you're taking 9 and for how long are reflective or indicative of 10 what your risk would be? Yes. Increasing dose and duration 11 12 increase the risk of both addiction and overdose. 13 Q. You were asked questions about the FDA. 14 I just want to ask you a couple of brief questions 15 about that. 16 The FDA does not have laboratories where 17 they do widespread testing of drugs; isn't that 18 true? 19 That's true. 20 In fact, in determining whether a particular drug is safe and efficacious, the FDA has 21 22 to rely upon information provided to it by what's 23 called the response of the company that's making the 24 drug, right? 25 A Yes.

```
196
 1
                      Frye Hearing - Dr. Lembke
 2
                   So there's a kind of a necessity on the
 3
       part of the FDA to take at face value what is told
 4
       to it concerning the results of any review of safety
 5
       or efficacy?
 6
                   MS. STRONG: Objection, your Honor.
 7
                    This is Sabrina Strong again. I am
 8
               trying to be very lenient with leading.
 9
                   THE COURT: I got it.
10
                   MS. STRONG: Leading.
                   THE COURT: I'll sustain it. Rephrase
11
12
               the question.
13
                   MR. HANLY: Okay.
14
                   THE COURT: It's too suggestive of the
15
              answer.
16
                   MR. HANLY: Got it, Judge.
17
              Q.
                   The FDA does not do its own physical
18
       research on proposed new drugs, correct?
                   That's correct.
19
              Α
20
                   Where does the FDA get information then
21
       concerning the attributes of that proposed new drug
22
       or prospective indication for that new drug; where
23
       does that information come from?
24
                   From the drug companies who are making
25
       the drug and trying to get approval for the drug.
```

1

197

Frye Hearing - Dr. Lembke 2 Now, there was a question asked by Mr. Pyser as to whether you used the term gateway effect 3 in any peer reviewed publication of yours, right? 4 5 Α Yes. 6 You testified that, no, that term did 7 not appear in any such publication, but, of course, 8 it does appear, in fact, it's part of the name of a 9 chapter in your book, correct? 10 That's true. 11 All right. And isn't it also true that 12 subsequent to the publication of your book in 2016 13 that at least one peer reviewed report used the term 14 gateway effect? 15 Α Yes. 16 And I'm just looking for that page, that 17 slide that has that on it. 18 I would say that gateway effect is a commonly accepted term in addiction medicine. It's 19 20 not a new term or a creative term. 21 Q. But, in fact, in the year 2017, a year 22 after the publication of your book, there was 23 published a peer reviewed article that actually 24 references the gateway effect, right? 25 Α Yes. Which article was that? Was that

198 1 Frye Hearing - Dr. Lembke 2 the Harbaugh? I believe it's Harbaugh, but I can't 3 Q. 4 seem to find it. 5 But in any case, we can agree that subsequent to your use of the term gateway effect it 6 7 was used by other medical researchers and authors, 8 right? 9 Yes. A 10 MR. PYSER: Objection. 11 Leading again. THE COURT: I'll allow it. Go ahead. 12 13 If we were going to hear an objection for 14 every leading question, we'd be here until 15 Thanksgiving. 16 Okay. The report that I was referencing 17 was Slide 18 that we looked at, doctor, and it's the 18 NASEM report on pain management and the opioid 19 epidemic. 20 We've culled out this particular slide. 21 We see that this paper was published in 2017, the 22 year after your book in which you used the term 23 gateway effect, and there we see a quote from the 24 NASEM report. "Preponderance of evidence suggests 25 that the major increase in prescription opioid use

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199
 1
                      Frye Hearing - Dr. Lembke
 2
       beginning in the late 1990s has served as a gateway
 3
       to increased heroin use."
 4
                   Did I read that correctly?
 5
              Α
                   Yes.
 6
                   You didn't write that; did you?
              Q.
 7
              A
                   No.
 8
              Q.
                   You weren't part of the folks who wrote
 9
       this consensus study report; were you?
10
              Α
                   No.
11
              Ο.
                   All right. Last area. Promise, your
12
       Honor.
13
                   Miss Strong's Slide Number 2 is, is the
14
       slide that consists of these circles with various
15
       things written in; do you remember that, doctor?
16
                    The one with the big question mark in
17
       red at the end?
18
              Q.
                  Yes.
19
              Α
                   Okay. Yes.
20
                   Okay. And so let me see if I can use
21
       this. There we are. Okay.
22
                   And so Miss Strong labeled these
23
       Lembke's Factors, and let me see if I understand it.
                    Do you agree that these are some of the
24
25
       factors that in your opinion relate to the opioid
```

```
200
 1
                      Frye Hearing - Dr. Lembke
 2
       epidemic?
 3
                    Yes, they are some of the factors.
              Α
 4
              Q.
                    But they're not all of the factors; are
 5
       they?
 6
              Α
                    No.
 7
                    Because what's missing from these --
               Q.
 8
       this collection of circles of varying --
 9
                    THE COURT: Mr. Hanly, ask the witness
10
               what's missing.
11
                   What, if anything, are missing from
12
       these -- from this chart?
13
                    Well, Miss Strong referred to other
14
       pharmaceutical companies by which I believe she
15
       meant those not involved in the litigation, so
16
       that's a big circle that's missing.
17
                    What's also missing is key opinion
18
       leaders, drug detailers, drug rep detailers, the
       whole medical education paradigm shift that led
19
20
       doctors -- that doctors relied on to inform their
21
       prescribing.
22
                    Should pharmaceutical manufactures be
23
       among these circles?
24
                    Yes. So that's what I meant when I said
25
       not just other pharmaceutical companies, but the
```

```
201
 1
                      Frye Hearing - Dr. Lembke
 2
       Defendants in this case should certainly be on this
 3
       list.
                   So -- well, I'm not going to lead you.
 4
              Q.
 5
                    Who are the others that would be
       appropriately on the list of Dr. Lembke's Factors?
 6
 7
                    So opioid manufacturers, opioid
 8
       distributors, opioid pharmacies or pharmacies where
 9
       opioids were dispensed and distributed.
10
                   MR. HANLY: Okay. Doctor, that is --
11
               oh, one more area.
12
                   Mr. Pyser brought to your attention a
13
       statement in your book in which, and I'm
14
       paraphrasing the statement, that prescription
15
       opioids, the relationship between prescription
16
       opioids and heroin use is unclear; do you recall him
       asking you about that sentence?
17
18
                   Yes, I do.
19
              Ο.
                    That is a sentence that you wrote in
20
       your book?
21
              Α
                   Yes.
22
                   Can you explain to Justice Garguilo and
23
       all of us what you meant by that sentence.
24
                    Yes. So at the time there was much
25
       debate about whether or not efforts that were being
```

202 1 Frye Hearing - Dr. Lembke 2 made at that time to curb opioid prescribing might 3 be contributing to patients who had become dependent on and addicted on opioid, turning to elicit 4 5 sources. At the time that I published the book 6 7 and finished my reference list there wasn't really 8 good definitive data. 9 Furthermore, the natural history and the 10 progression of the disease of addiction would lead 11 patients who become addicted to prescription opioid 12 to seek out more potent, more potent forms and more 13 and cheaper sources, and as the U.S. population 14 broadly became dependent on and addicted to 15 prescription opioid the drug cartels responded to 16 that increased demand by making heroin more cheaply 17 available. 18 Again, this sentence, called to your 19 attention by Mr. Pyser, was written in or around 20 2016? 21 That's right. Actually, it was written 22 probably a year before that. It takes about a year 23 between finishing a manuscript and its coming out in 24 publication, so I really finished the book in 2015.

The NASEM article that we looked at that

25

Q.

```
1
                                                           203
                     Frye Hearing - Dr. Lembke
 2
       talked about a prescription opioid use as a gateway
 3
       to heroin, increased heroin use was two years or so
 4
       after you wrote this sentence about the relationship
 5
       being unclear?
 6
              A Yes, that's right.
 7
                   And does science progress over a
 8
       two-year period?
 9
                  Yes. It became more clear right around
10
       that time period that, in fact, prescription opioid
11
       are a gateway to heroin.
12
                   MR. HANLY: Thank you very much, doctor.
13
              That's all I have. Thank you, your Honor.
14
                    THE COURT: Okay. Dr. Lembke, thank you
15
              very much.
16
                   THE WITNESS: Thank you.
17
                   THE COURT: You're excused.
18
                   THE WITNESS: Thank you.
                    THE COURT: With no other business, the
19
20
              Court will close the record.
21
                   Thank you all.
22
23
24
25
```

Frye Hearing - Dr. Lembke <u>C E R T I F I C A T I O N</u> I, Stephanie Casagrande Hague, CSR, RPR, an Official Court Reporter of the State of New York, County of Suffolk, do hereby certify that the above is a true and accurate transcription of my stenographic notes taken in the above-entitled action on this day; Furthermore, photocopies made of this transcript by any party cannot be certified by me to be true and accurate. Therefore, only those copies bearing an original signature in blue ink are official certified copies. STEPHANIE CASAGRANDE HAGUE, CSR, RPR Official Court Reporter

	ı			ı
	1970s [1] - 145:12	2020 [7] - 1:8, 115:4,	5	96:10, 107:9 205
'90s [1] - 16:2	1980 [3] - 45:3, 45:11, 55:19	115:19, 118:19, 121:12, 130:25,	5 [6] - 16:10, 51:18,	abuse [10] - 27:6, 117:2, 117:5, 139:5,
303[1] 10.2	1980s [2] - 55:16,	154:12	121:13, 153:20,	140:18, 141:18,
0	154:25	207 [4] - 118:20,	193:12, 193:13	142:14, 143:9,
02774 10 72.4	1990 [4] - 135:10,	118:23, 130:24,	5.9 [1] - 91:12	144:20, 178:10
03771 [1] - 73:4 09 [1] - 1:8	135:14, 135:22,	131:2	54 [2] - 115:9, 115:11	abusing [1] - 27:9
03 [1] = 1:0	136:4	208 [1] - 131:3	5th [1] - 77:17	academic [13] - 33:24,
1	1990s [18] - 27:6, 55:3, 55:9, 55:11, 55:13,	21 [4] - 89:19, 90:2, 131:2, 131:5	6	34:5, 34:12, 34:23, 79:18, 79:21, 81:9,
	55:18, 56:2, 56:18,	212 [1] - 1:18		81:15, 81:25, 82:3,
1 [17] - 15:11, 15:12, 15:24, 37:6, 54:25,	57:4, 97:2, 98:22,	212)397-1000 [1] -	6 [4] - 16:12, 57:20,	82:4, 82:12, 170:3
63:12, 67:3, 84:14,	99:12, 101:25,	1:23	92:11, 160:2	Academies [2] -
113:18, 113:23,	135:6, 154:25,	21st [1] - 155:2	6.5 [1] - 91:12 600 [7] - 37:16, 37:20,	95:12, 101:19
114:5, 114:11,	168:6, 171:16, 199:2	220 [1] - 73:4	38:4, 39:5, 43:21,	Academy[1] - 63:2
123:4, 186:3,	1995 [4] - 8:5, 20:3,	23 [2] - 185:3, 193:15	43:25, 64:21	accept [4] - 54:8,
186:10, 186:13,	83:3, 83:5 1997 [3] - 59:19,	239 [4] - 7:22, 9:10, 9:20, 10:11	,	139:18, 139:25, 195:4
187:5	59:25, 60:3	9.20, 10.11 24 [3] - 115:11,	7	acceptance [4] -
10 [6] - 64:4, 68:7,	1999 [1] - 58:7	154:13, 182:15	7 0.0 40.45	73:13, 74:4, 101:2
92:14, 118:20, 191:19, 194:8	1:45 [1] - 105:22	24th [1] - 153:17	7 [4] - 2:9, 16:15, 59:16, 59:18	accepted [15] - 51:13,
100 [4] - 35:8, 60:2,		25 [1] - 105:6	70 [1] - 159:7	53:3, 58:25, 74:11,
191:19, 194:9	2	25th [1] - 106:22	700 [1] - 10:10	101:5, 109:2,
10005 [1] - 2:4	2 [17] - 13:11, 15:25,	27 [1] - 182:15	784-6401 [1] - 1:18	155:15, 155:21,
10016 [1] - 1:16	39:10, 54:24, 57:9,	276 [1] - 153:20		155:25, 156:4, 156:9, 176:22,
10036 [1] - 2:9	59:5, 67:5, 74:16,	28 [1] - 2:4	8	177:5, 195:7, 197:19
11 [2] - 44:25, 69:7	113:25, 114:5,	29 [3] - 17:24, 89:19, 90:2	8 [4] - 16:16, 62:21,	access [9] - 8:2,
112 [1] - 1:15	114:12, 151:7,	29(1 [1] - 17:24	62:23	32:10, 70:22,
115 [1] - 133:23 11747 [1] - 1:22	154:22, 171:12,	2nd [1] - 162:25	02.20	103:14, 155:4,
11th [1] - 4:15	171:13, 171:15,		9	168:22, 168:23,
12 [8] - 70:7, 76:20,	199:13 20 [10] - 21:18, 22:11,	3		170:17, 170:21
77:14, 89:16, 90:2,	49:2, 54:12, 84:19,	0 4.45.40.04	9 [4] - 16:19, 66:5,	accompanying [1] -
106:14, 106:18,	90:24, 104:22,	3 [13] - 4:15, 13:21, 16:4, 41:24, 60:10,	78:19, 153:20 9/11 _[1] - 4:13	96:5 accurate [4] - 38:18,
122:5	121:14, 185:3,	78:19, 85:23,	94305 [1] - 12:20	171:22, 204:9,
12,000 [2] - 45:4, 45:7	193:20	114:12, 123:6,	9th [1] - 185:15	204:14
127 [1] - 185:3	20-odd [1] - 64:22	131:3, 160:3, 160:13	5[1]	Act [1] - 153:7
12:30 [1] - 105:17 12th [1] - 83:4	20-year [1] - 59:20	30 [1] - 64:4	Α	acted [1] - 189:18
13 [2] - 84:8, 154:21	2000 [2] - 8:5, 145:12	305 [1] - 1:21	-l1 00 44	acting [2] - 127:19,
13.2 [1] - 90:2	2001 [1] - 193:23	3rd [3] - 8:18, 70:23,	abate [1] - 36:14 abbreviated [2] - 4:13,	189:25
14 [3] - 88:21, 88:23,	2003 [1] - 19:5 2006 [1] - 140:5	77:17	5:3	action [3] - 162:17,
159:7	2009 [1] - 42:9	4	ability [3] - 75:18,	162:20, 204:11 Actiq [1] - 137:10
15 [4] - 84:19, 90:24,	2010 [3] - 58:8,		122:3, 192:10	active [1] - 21:25
115:11, 174:6	104:17, 105:4	4 [7] - 16:8, 44:17,	able [8] - 6:16, 50:8,	actual [5] - 36:21,
15-minute [1] - 77:23	2013 [1] - 139:12	67:19, 69:8, 69:9,	113:17, 153:19,	73:17, 88:17, 135:12
16th [5] - 115:4,	2015 [2] - 89:15,	118:20, 118:25	166:16, 177:15,	acute [2] - 91:11,
115:19, 118:18, 121:12, 154:12	202:24	4.9 [1] - 92:4	182:18, 192:3	165:10
121.12, 134.12 17 [1] - 94:7	2016 [11] - 26:12,	400 [1] - 1:21 400000 [1] - 3:9	above-entitled [1] - 204:11	adapt [1] - 23:16
170 [1] - 154:13	26:14, 31:9, 35:7, 35:10, 59:20, 60:4,	401 [1] - 12:19	absence [1] - 76:6	addicted [10] - 16:11,
171 [1] - 154:13	139:11, 157:8,	41.3 [1] - 90:2	absolute [1] - 130:23	46:24, 49:2, 55:22, 66:23, 67:4, 80:18
17232 [1] - 106:20	197:12, 202:20	44 [1] - 105:6	absolutely [2] - 9:11,	66:23, 67:4, 89:18, 202:4, 202:11,
175 [1] - 121:13	2017 [5] - 3:10,	48 [3] - 1:2, 3:3, 78:3	118:10	202:14
18 [4] - 101:14,	104:17, 105:4,	4:39 [1] - 11:12	abstract [15] - 37:23,	addiction [79] - 15:24,
101:17, 167:21,	197:21, 198:21	4:40 [3] - 7:18, 7:24,	38:5, 38:9, 38:16,	20:14, 22:21, 22:23,
198:17	2018 [1] - 68:16	70:13	38:19, 38:20, 39:3,	23:12, 23:20, 23:22,
19 [1] - 103:2 1900s [1] - 55:25	2019 [3] - 95:9,	4:50 [1] - 9:10	39:21, 39:22, 40:9, 41:5, 41:7, 41:13,	24:3, 24:9, 24:12,
19005 [i] - 00.20	106:22, 153:17		+1.J, +1.1, 41.1J,	25:8, 26:2, 33:11,

206

140:16, 168:13, 169:4, 170:3, 197:23, 197:25, 202:25 **articles** [6] - 64:21, 69:13, 108:7, 138:20, 156:21, 156:25

articulated [2] - 75:9,

188:10 ascribed [1] - 81:5 Asher [3] - 4:4, 113:20, 151:8 ASHER [2] - 2:10, 4:4 aside [4] - 129:17, 134:3, 140:5, 140:7 aspects [1] - 79:18 **ASPPH**[1] - 94:13 assess [3] - 30:20, 40:22, 41:16 assist [1] - 29:23 assistance [2] -164:16, 164:18 **Associate** [1] - 17:8 associated [1] - 84:17 Association [8] -53:17, 53:24, 54:21, 86:18, 87:2, 92:20, 93:4, 94:12 association [1] -94:16 associations [1] -110:20 Asst [1] - 2:5 **assume** [1] - 5:19 **assuming** [1] - 81:6 attend [1] - 4:14 attention [7] - 30:10, 41:23, 167:20, 182:22, 194:18, 201:12, 202:19 Attorney [4] - 2:3, 2:3,

2:5, 3:21 **Attorneys** [2] - 1:15,

attorneys [1] - 2:8 attributes [1] - 196:21 audiotaping [1] - 18:2 August [2] - 8:18, 70:23

auspices [1] - 62:25 author [4] - 25:17, 39:19, 41:5, 68:15 authoritative [4] -94:17, 95:18, 108:7,

authorities [1] - 149:4 authority [1] - 149:13 authors [14] - 38:10, 38:13, 38:22, 39:19,

168:19

1:21

				_
45.0.45.40.47.5	40.40	07.0.00.00.00.0	404.44.404.40	Г
45:6, 45:16, 47:5,	42:16	87:2, 92:20, 93:3	181:11, 181:12	
51:8, 51:12, 51:14,	affect [2] - 77:16,	AmerisourceBergen	anticipating [1] -	
51:15, 52:4, 52:7,	81:24	[2] - 163:23, 164:2	53:14	
52:10, 52:14, 52:15,	afternoon [4] - 110:4,	amount [8] - 78:18,	apart [1] - 114:4	
52:20, 53:4, 53:18,	110:5, 174:23, 175:4	82:5, 82:6, 82:8,	apologies [1] - 61:4	
53:25, 54:11, 54:17,	aged [1] - 105:6	82:10, 90:10, 114:10	apologize [2] - 109:6,	
54:18, 56:5, 56:11,	agencies [1] - 150:12	Amount [1] - 59:18	109:24	
56:25, 57:13, 58:9,	aggregate [5] -	amounts [1] - 98:12	appear [4] - 42:21,	ı
58:10, 58:25, 66:13,	131:13, 132:5,	analgesia [3] - 98:23,	193:6, 197:7, 197:8	
66:19, 66:23, 80:7,	132:10, 146:17,	99:7, 135:12	appearances [1] -	
80:12, 80:18, 80:20,	178:16	analysis [11] - 38:7,	3:10	
82:22, 87:17, 87:23,	aging [1] - 99:6	43:11, 74:16, 76:2,	appeared [1] - 68:15	
88:4, 88:17, 89:12,	ago [3] - 14:18,	122:17, 122:21,	appearing [1] - 63:14	
89:22, 90:4, 91:17,	106:23, 190:19	126:23, 166:11,	appendix [2] - 41:2,	ı
91:24, 92:13, 93:16,	agree [21] - 46:2, 77:8,	168:14, 169:4, 169:6	41:25	
97:4, 100:23,	114:18, 114:22,	analyze [1] - 187:22		
102:17, 114:7,	136:14, 136:15,	analyzed [1] - 97:6	applied [1] - 73:14	ı
116:18, 116:23,	137:20, 140:23,	anecdotal [2] -	applies [2] - 17:21,	
117:14, 123:8,	· · · · · · · · · · · · · · · · · · ·		111:11	
168:24, 175:16,	141:14, 141:17,	125:16, 130:6	apply [6] - 31:9, 135:6,	ı
190:22, 191:7,	142:23, 143:8, 145:5, 149:21,	anecdotally [1] -	177:15, 177:19,	
194:15, 194:24,		126:3	177:22, 188:21	ı
195:3, 195:12,	150:24, 168:20,	anecdote [4] - 123:22,	applying [1] - 50:6	ı
197:19, 202:10	173:9, 188:3,	124:14, 124:21,	appointed [2] - 29:16,	
Addiction [9] - 17:8,	188:20, 198:5,	125:19	29:19	ı
17:10, 17:11, 18:20,	199:24	anecdotes [2] - 82:14,	appointment [2] -	ı
20:24, 51:22, 52:9,	agreement [1] - 5:24	120:12	24:24, 25:2	ı
52:25, 53:8	agreements [1] - 43:6	Anesthesiology [1] -	approaches [1] -	ı
addictive [7] - 27:20,	ahead [7] - 7:11,	24:22	52:20	ı
50:25, 63:13, 63:16,	79:14, 109:9,	anesthesiology [1] -	appropriate [11] -	ı
64:2, 67:3, 68:21	130:24, 151:9,	24:25	6:15, 38:23, 64:16,	ı
Addictive [1] - 68:8	163:16, 198:12	Angeles [1] - 103:10	74:12, 108:11,	ı
addition [4] - 25:24,	air [1] - 83:20	ankle [1] - 92:3	135:12, 138:8,	ı
29:15, 36:4, 48:13	alcohol [1] - 27:14	Anna [1] - 12:2	165:2, 165:10,	ı
additional [5] - 10:16,	allege [1] - 184:21	ANNA [1] - 12:14	166:23, 188:19	ı
21:9, 107:20,	alleged [2] - 62:5,	anna [1] - 12:19	appropriately [2] -	ı
135:24, 188:6	65:10	Annals [3] - 86:23,	73:14, 201:6	ı
address [7] - 7:9,	allegedly [1] - 186:4	87:2, 92:24	approval [2] - 148:19,	ı
8:12, 12:18, 36:14,	Allergan [2] - 5:7,	announcements [1] -	196:25	ı
	133:4	4:11	approved [6] - 83:5,	
94:4, 107:14, 140:12	allocated [2] - 148:24,	annual [1] - 4:13	127:4, 127:8,	
addressed [1] - 102:6	150:3	answer [21] - 13:3,	127:19, 128:23,	
addressing [1] - 140:6	allotted [1] - 78:17	13:12, 13:20, 39:4,	148:10	1
administered [3] -	allow [3] - 107:17,	49:14, 64:17, 64:20,	approving [3] - 128:2,	
45:7, 47:3, 87:23	108:6, 198:12	99:16, 111:6,	128:18, 129:5	1
Administration [1] -	almost [6] - 38:25,	129:15, 130:17,	April [1] - 153:16	
20:6	39:2, 59:20, 60:4,	132:5, 139:23,	ARCOS [1] - 166:12	
administration [2] -	105:16, 112:11	144:3, 165:4,	area [10] - 21:4, 21:7,	1
194:19, 194:22	alone [1] - 8:2	169:21, 170:8,	21:10, 25:14, 51:14,	
Administrator [2] -	alter [1] - 169:19	170:9, 175:23,	54:17, 59:2, 173:5,	
18:10, 18:11	altered [1] - 139:11	184:6, 196:15	199:11, 201:11	1
admissions [2] -	altogether [1] - 23:18	ANSWER [8] - 115:24,	areas [4] - 57:13,	
58:21, 96:22	ambulatory [1] - 47:6	116:7, 119:4, 119:8,	73:11, 74:22, 75:3	1
Adobe [1] - 186:21	ambushed [1] -	122:11, 131:12,	argument [2] - 74:23,	1
adopt [2] - 5:16, 6:22	107:23	183:4, 185:7	107:6	
adopted [1] - 54:21	ambushing [1] -	answered [5] - 122:2,	arrive [1] - 83:10	
advent [1] - 55:16	106:15	153:25, 154:16,	arthritis [1] - 65:7	1
adverse [7] - 30:23,	American [13] - 20:24,	159:12, 192:23	article [15] - 41:3,	
57:25, 90:5, 90:15,	51:21, 52:8, 52:25,	answering [1] -	46:16, 69:17, 89:15,	1
91:23, 93:20, 93:24	53:17, 53:24, 54:19,	170:24	139:10, 140:6,	
advisory [2] - 29:20,	54:20, 63:2, 86:18,	answers [3] - 13:17,	140:7, 140:12,	1
			ľ	1

40:11, 40:19, 41:8, 42:6, 42:9, 44:8, 63:11, 170:12, 171:4, 198:7 available [9] - 79:22, 108:8, 136:6, 136:7, 172:20, 172:24, 178:4, 202:17 Avenue [1] - 1:15 await [1] - 74:16 aware [16] - 10:20, 83:4, 83:23, 102:22, 111:8, 111:11, 138:19, 145:10, 145:16, 145:19, 153:6, 169:6, 170:11, 182:5, 182:24, 184:7 awkwardly [1] - 26:7

В

background [4] -19:8, 76:7, 188:23, 191:2 bad [3] - 85:16, 86:5, 86:14 Badala [1] - 4:2 BADALA[2] - 1:23, 3:25 base [1] - 166:3 based [27] - 49:6, 49:15, 49:20, 50:4, 54:10, 54:15, 55:23, 64:3, 64:20, 65:10, 68:25, 75:19, 89:23, 90:3, 98:16, 108:17, 126:4, 131:7, 131:12, 131:13, 132:8, 132:10, 138:8, 138:12, 165:12, 170:4, 188:6 bases [2] - 60:9, 79:20 basic [2] - 50:14, 74:3 basics [2] - 50:17, 51:13 basis [10] - 70:16, 80:17, 80:25, 83:9, 107:15, 130:7, 156:2, 168:12, 191:20 bear [5] - 94:23, 147:12, 147:17, 165:6, 182:10 bearing [2] - 106:20, 204:15 became [5] - 154:25, 155:10, 169:23, 202:14, 203:9 become [8] - 44:12,

46:24, 52:16, 89:18, 108:8, 202:3, 202:11 becomes [1] - 40:19 becoming [4] - 16:11, 16:13, 49:2, 67:3 began [6] - 27:5, 32:21, 55:16, 56:17, 154:24, 193:23 **begin** [6] - 7:9, 10:17, 78:9, 78:13, 109:11, 109:21 beginning [6] - 3:10, 55:9, 88:5, 101:24, 193:17, 199:2 begins [2] - 106:3, 170:20 behalf [1] - 76:16 Behavioral [2] - 17:12, 19:22 behaviors [2] - 52:16, 140:24 belabor [1] - 184:9 belief [1] - 126:24 belong [1] - 110:19 below [3] - 40:24, 43:5, 102:3 beneficiaries [1] -35:19 benefit [6] - 30:14, 30:17, 115:8, 117:11, 118:19 benefited [3] - 125:2, 125:10, 125:14 benefits [5] - 30:21, 82:17, 116:13, 128:24, 189:14 benign [1] - 92:4 benzodiazepines [1] -27:12 best [4] - 10:13, 29:14, 122:2, 152:8 better [2] - 49:22, 128:15 between [24] - 24:3, 29:10, 33:14, 41:12, 54:18, 58:7, 59:19, 60:3, 64:4, 68:22, 93:18, 93:24, 104:17. 105:4. 112:22. 114:5. 157:19. 158:10. 158:17, 185:14, 191:16, 191:22, 201:15, 202:23 beyond [7] - 74:25, 75:2, 77:10, 125:13,

125:19, 153:13,

big [3] - 109:22,

199:16, 200:16

167:6

bigger [1] - 65:3 bind [1] - 50:19 biopsychosocial [1] -23:23 bipolar [1] - 117:16 bit [11] - 22:18, 36:20, 60:8, 84:16, 131:6, 132:22, 147:8, 154:21, 156:14, 158:21, 167:25 **blue** [2] - 89:15, 204:16 board [6] - 5:5, 5:7, 21:11, 21:12, 78:24, 112:14 Board [8] - 20:19, 20:23, 20:24, 21:3, 149:5, 149:12, 149:22, 150:3 Boards [6] - 146:25, 147:2, 149:21, 150:8, 160:9, 161:14 boards [1] - 42:16 bodies [2] - 36:7, 168:19 body [12] - 25:6, 25:11, 51:21, 51:24, 52:3, 65:4, 66:19, 67:24, 80:14, 81:5, 94:17, 95:18 Bonert [4] - 85:23, 85:24, 86:10, 86:16 book [39] - 25:25, 26:8, 26:9, 26:11, 26:18, 26:21, 28:8, 31:8, 32:5, 35:7, 35:9, 36:24, 43:19, 60:16, 60:25, 62:4, 62:14, 81:14, 100:13, 121:6, 123:17, 124:15, 125:14, 130:18, 147:21. 157:4. 157:7, 157:10, 157:15. 157:17. 158:8, 197:9, 197:12, 197:22, 198:22, 201:13, 201:20, 202:6, 202:24 booklet [1] - 63:10 **books** [1] - 26:25 bootstrapped [1] -11:11 Boscarino [1] - 89:3 boscarino [1] - 89:21 bottom [6] - 41:15, 57:5, 58:20, 129:18,

182:23, 187:21

box [2] - 40:23, 43:5

brain [4] - 50:20, 50:23, 51:2 branded [1] - 136:9 break [5] - 65:14, 65:20, 77:24, 151:25, 160:15 breathing [2] - 51:3, 51.4 brief [3] - 23:7, 191:8, 195:14 **briefing** [1] - 6:13 briefly [16] - 10:18, 15:23, 22:20, 30:16, 36:9, 40:14, 48:20, 49:18, 50:17, 59:24, 60:9, 67:7, 79:17, 83:8, 95:16, 100:18 bring [2] - 153:20, 171:13 bringing [1] - 94:22 broad [2] - 23:3, 23:7 broadcasting [1] -18:2 broader [1] - 75:8 Broadhollow [1] -1:21 broadly [4] - 23:23, 124:20, 191:3, 202:14 brochure [1] - 62:24 broke [1] - 74:21 brought [4] - 156:16, 157:4, 164:5, 201:12 Brown [1] - 29:21 Brummett [1] - 91:11 building [1] - 162:11 bunch [1] - 165:17 buprenorphine [6] -20:7, 20:10, 20:11, 20:12, 20:16, 124:16 business [1] - 203:19 businesses [1] -139:17 busy [1] - 38:25 but.. [1] - 23:5 BY [29] - 2:5, 2:10, 14:6, 18:18, 41:10, 43:3, 44:18, 46:5, 47:15, 51:19, 53:13, 57:21, 59:17, 60:7, 62:3, 62:22, 65:23, 66:6, 79:16, 84:9, 88:22, 91:3, 94:8, 99:14, 101:16, 103:3, 104:24, 110:2, 174:21

C

calculated [3] -

20 134:16, 176:10, 176:13 calendar [1] - 3:8 California [5] - 12:20, 19:25, 29:17, 29:20, 29:25 campaign [1] - 99:11 campaigns [1] - 168:7 cancer [6] - 39:25, 40:13, 40:22, 65:7, 127:2, 155:17 cannot [6] - 6:20, 102:5, 133:2, 175:18, 184:19, 204:13 capacity [1] - 70:21 card [4] - 164:6, 164:12, 164:15, 164:17 Cardinal [4] - 10:19, 61:3, 71:19, 163:20 cards [1] - 165:17 care [6] - 29:4, 49:22, 98:2, 150:19, 150:24, 187:17 career [1] - 25:5 careful [1] - 38:12 carefully [1] - 39:24 carrying [1] - 96:14 cartels [2] - 145:7, 202:15 Carter [8] - 10:15, 162:24, 163:14, 174:19, 174:24, 181:20, 186:23, 190:18 CARTER [12] - 163:3, 163:5, 174:20, 174:22, 176:8, 181:24, 182:14, 186:17, 186:20, 186:25, 187:2, 190:3 Casagrande [1] -204:6 CASAGRANDE[2] -2:20, 204:20 case [121] - 3:8, 5:12, 5:18, 6:19, 9:4, 11:7, 11:8, 11:11, 15:3, 15:16, 36:21, 37:6, 37:13, 39:17, 43:19, 47:17, 47:24, 48:16, 48:24, 50:3, 50:7, 54:25, 59:6, 60:10,

63:22, 65:11, 71:11,

71:12, 71:20, 71:23,

74:25, 81:12, 81:13,

87:21, 90:13, 93:13,

72:3, 72:5, 72:20,

73:3, 73:5, 73:16,

```
centers [1] - 58:10
Central [1] - 1:8
century [1] - 155:2
ceremony [1] - 4:14
certain [10] - 21:10,
 47:18, 62:5, 62:15,
 64:12, 65:2, 66:8,
 79:23, 127:5
certainly [5] - 22:14,
 73:8, 98:21, 141:18,
 201:2
certainty [2] - 50:10,
 187:16
certificate [1] - 21:6
certified [2] - 204:13,
 204:17
Certified [3] - 20:19,
 20:23, 21:3
certifies [1] - 21:13
certify [1] - 204:9
cetera [4] - 18:15,
 43:9, 55:5, 60:13
chain [3] - 152:18,
 153:8, 182:25
change [5] - 9:2,
 33:14, 33:17, 56:2,
 183:15
changed [1] - 180:22
changes [2] - 56:15,
 99:22
changing [1] - 183:20
chapter [1] - 197:9
chart [3] - 88:23,
 92:15, 200:12
charts [2] - 45:4, 45:5
cheaper [1] - 202:13
cheaply [1] - 202:16
check [1] - 71:13
Chen [1] - 139:11
chief [3] - 5:13, 5:18,
 6:20
Chief [5] - 17:8, 17:23,
 18:10, 18:11, 18:20
childhood [1] - 117:7
choose [1] - 6:5
chorus [1] - 82:18
CHORUS [1] - 3:7
Chou [2] - 39:16,
 39:19
CHOU [1] - 39:16
chronic [34] - 15:25,
 16:10, 39:25, 40:12,
 40:13, 40:21, 41:20,
 42:11, 43:15, 51:12,
 52:11, 52:21, 56:13,
 63:17, 64:5, 66:14,
 67:6, 69:10, 69:16,
 70:2, 89:11, 89:16,
 102:18, 124:25,
```

125:10, 127:2,

```
127:6, 127:10,
 127:20, 129:6,
 148:11, 155:11,
 155:17, 191:8
Chronic [2] - 39:23,
 41:13
circa [1] - 193:23
circle [1] - 200:16
circles [3] - 199:14,
 200:8, 200:23
circumstance [2] -
 20:9, 31:23
circumstances [1] -
 140:23
citation [2] - 158:2,
 158:3
cited [5] - 45:10,
 46:16, 46:17,
 157:23, 157:25
City [3] - 103:9,
 103:10, 145:12
Civil [1] - 55:25
claim [5] - 67:10,
 159:2, 159:10,
 184:20, 185:5
claimed [1] - 100:14
claims [1] - 96:2
clarify [2] - 158:14,
 190:16
clarity [4] - 77:13,
 100:17, 117:12,
 130:23
classic 131 - 8:13.
 11:14, 107:25
clean [2] - 162:13,
 162:23
clear [9] - 6:19,
 104:25, 122:19,
 136:23, 141:10,
 150:12, 151:15,
 179:18, 203:9
clearly [1] - 76:3
CLERK [9] - 3:2, 3:8,
 12:10, 12:12, 12:17,
 12:21, 78:3, 78:6,
 106:8
Clerk [1] - 12:15
Cleveland [1] - 111:25
client [1] - 180:10
clinic [1] - 24:11
Clinic [2] - 17:9, 18:21
clinical [25] - 21:25,
 22:4, 29:24, 37:2,
 48:16, 49:5, 49:6,
 49:9, 49:12, 49:23,
 49:24, 64:22, 68:3,
 69:13, 96:23, 96:25,
 177:6, 177:11,
 178:2, 178:5,
 178:12, 178:14,
```

```
178:17, 193:20
clinicians [1] - 38:25
close [2] - 45:10,
 203:20
closely [1] - 44:7
closer [1] - 135:11
CME [1] - 149:10
co [2] - 164:15, 164:17
co-pay [2] - 164:15,
 164:17
code [1] - 13:9
colleagues [3] -
 96:24. 147:23. 148:2
collection [1] - 200:8
collectively [1] - 57:7
college [1] - 104:3
Columbia [1] - 94:19
coming [7] - 87:12,
 97:3, 120:23,
 125:23, 126:22,
 148:19, 202:23
commence [3] - 4:14,
 13:12, 13:20
Commission [2] -
 160:9, 161:14
committing [1] -
 138:13
common [3] - 56:25,
 90:7, 169:11
commonly [2] - 138:4,
 197:19
communities [2] -
 170:16, 192:17
community [2] -
 101:3, 101:6
comorbidity [1] -
 117:9
companies [19] -
 34:10. 42:16. 43:7.
 53:16, 62:5, 62:15,
 64:12, 65:2, 66:9,
 79:24, 146:4,
 146:13, 147:5,
 147:11, 147:15,
 148:18, 196:24,
 200:14, 200:25
company [4] - 31:24,
 32:23, 63:8, 195:23
compare [1] - 47:24
compared [2] - 100:9,
 135:5
compares [1] - 99:3
comparing [1] - 99:9
comparison [1] - 80:3
competitive [1] - 93:8
Complaint [1] - 42:22
complete [4] - 13:13,
 13:15, 13:20, 21:9
completely [1] -
 151:24
```

```
complex [2] - 23:22. 0 8
 52:11
components [2] -
 45:24, 67:22
comport [1] - 76:18
comprehensive[1] -
 121:17
compromise [1] -
 108:25
compulsive [3] -
 23:24, 52:17, 117:15
concept [6] - 49:15,
 49:16, 49:19, 66:16,
 181:22, 195:6
concepts [3] - 30:7,
 30:9, 30:25
concern [1] - 6:10
concerned [2] - 55:21,
 78:17
concerning [27] -
 25:25, 32:6, 32:11,
 32:24, 33:5, 35:23,
 37:8, 37:15, 47:20,
 54:11, 57:24, 74:21,
 80:18, 83:10, 84:3,
 93:17, 96:13, 97:16,
 100:14, 106:13,
 153:5, 153:23,
 191:5, 191:21,
 192:3, 196:4, 196:21
conclude [2] - 140:6,
 140:8
concluded [4] -
 157:18, 168:14,
 169:4, 169:7
conclusion [9] -
 38:23, 63:22, 69:11,
 69:25, 74:14, 75:25,
 86:12, 166:13
conclusions [8] -
 31:7, 31:10, 33:5,
 33:8, 43:14, 44:8,
 44:10, 191:21
concrete [1] - 131:8
condition [2] - 18:24,
 100:20
conditions [3] - 64:16,
 155:11
conduct [7] - 120:7,
 120:14, 120:19,
 166:11, 180:6,
 187:22, 188:2
conducted [5] - 29:24,
 121:2, 121:7,
 121:17, 182:25
confer [1] - 56:9
conferences [1] -
 34:22
confirmed [1] - 112:18
conflicts [2] - 38:13,
```

209

	•			
42:7	178:4, 178:14	39:17, 39:18, 39:20,	144:2, 144:16,	99:24, 100:11, 20
confounding [1] -	contexts [1] - 157:2	42:20, 43:2, 43:9,	144:17, 144:22,	111:20, 111:21,
122:23	continue [6] - 35:2,	45:8, 51:9, 55:5,	144:23, 145:3,	117:21, 117:24,
congressional [1] -	52:17, 56:14, 81:25,	58:13, 58:19, 60:17,	145:19, 145:20,	118:2, 124:11,
36:6	82:2, 169:25	62:16, 63:3, 63:8,	145:23, 145:24,	137:18, 167:12,
connection [22] -	continued [1] - 23:24	63:18, 63:19, 64:15,	146:20, 146:23,	167:13, 167:15,
8:19, 14:18, 26:15,	continues [2] -	66:9, 66:17, 66:20,	147:6, 147:19,	172:18, 175:11,
32:18, 37:11, 39:5,	114:24, 116:7	67:23, 82:4, 86:8,	148:7, 148:12,	175:20, 175:22,
39:17, 46:8, 55:13,	continuing [3] - 149:9,	89:4, 92:17, 92:18,	148:25, 149:2,	175:23, 175:25,
70:24, 72:17, 73:9,	160:7, 160:24	92:21, 93:4, 94:13,	149:7, 149:13,	176:2, 177:20,
87:21, 88:9, 90:12,	contradicts [1] - 66:8	95:6, 95:14, 97:13,	149:17, 149:19,	178:22, 180:8,
93:13, 93:23, 97:11,	contrast [1] - 33:25	101:17, 104:6,	149:20, 150:4,	180:13, 184:16,
112:3, 129:4, 175:9,	contributed [21] -	110:10, 110:11,	150:5, 150:22,	187:17, 187:18,
189:9	16:11, 16:12, 16:15,	110:13, 110:14,	150:23, 155:17,	187:23, 188:3, 204:8
connote [1] - 49:19	25:10, 47:11,	110:21, 110:22,	156:2, 156:6, 156:7,	couple [6] - 4:10,
Conroy [2] - 3:14,	138:17, 145:2,	110:25, 111:2,	157:24, 159:19,	49:14, 72:15,
78:22	146:5, 146:14,	111:9, 111:16,	159:25, 160:12,	136:22, 168:11,
CONROY [4] - 1:14,	146:19, 146:22,	111:17, 111:21,	160:21, 160:22,	195:14
1:17, 3:14, 7:3	147:2, 147:6, 148:6,	111:25, 112:19,	162:18, 162:20,	coupon [1] - 164:11
consensus [6] - 53:9,	148:16, 149:23,	112:24, 113:7,	164:13, 165:13,	course [23] - 4:25,
57:12, 68:18, 93:15,	150:21, 151:6,	113:12, 114:20,	165:22, 171:20,	8:23, 9:24, 10:4,
101:19, 199:9	151:13, 160:4,	116:15, 116:23,	172:5, 173:21,	12:25, 34:4, 47:16,
consequences [3] -	168:21	117:9, 117:16,	174:14, 176:6,	61:15, 73:16, 74:5,
30:23, 52:18, 91:23	contributing [1] -	117:22, 117:23,	176:7, 179:16,	74:19, 75:14, 79:21,
consequent [1] -	202:3	118:3, 118:8,	179:17, 183:8,	87:20, 88:13, 90:12,
191:17	contribution [1] -	118:14, 118:15, 119:10, 119:15,	183:11, 185:11, 185:15, 187:6,	96:14, 99:15,
consider [12] - 47:5,	147:14	119:19, 120:17,	187:18, 187:20,	147:21, 164:21, 174:13, 174:16,
108:23, 124:23,	contributors [1] - 96:4	120:24, 121:21,	189:9, 189:10,	197:7
125:8, 163:19,	control [2] - 153:19,	121:22, 122:14,	192:6, 192:12,	courses [2] - 160:8,
163:25, 164:7, 178:3, 178:7, 179:8,	182:16 Control [4] - 57:23,	122:24, 124:8,	192:15, 192:19,	160:25
179:20, 179:22	84:2, 84:13, 85:18	124:9, 124:12,	192:20, 193:3,	court [5] - 13:15,
considerable [4] -	controlled [7] -	124:13, 125:3,	193:7, 196:18,	14:17, 113:5,
82:6, 82:8, 82:10,	152:21, 152:24,	125:11, 125:24,	196:19, 197:9	113:19, 151:8
114:10	153:5, 153:12,	126:13, 126:14,	correcting [1] - 34:18	COURT [98] - 1:2,
considered [9] - 7:23,	153:24, 180:12,	127:2, 127:10,	correctly [12] - 16:22,	2:20, 3:6, 3:16, 3:19,
8:6, 11:12, 70:14,	184:12	127:16, 127:20,	52:22, 64:15, 71:22,	3:22, 3:24, 4:3, 4:8,
90:6, 90:7, 120:9,	Controlled [1] - 153:6	127:24, 128:20,	84:22, 96:6, 102:7,	4:24, 5:23, 6:2, 6:23,
120:16, 179:5	controlling [1] -	129:7, 129:8,	103:19, 109:18,	7:4, 7:11, 9:23,
considers [1] - 18:4	122:23	129:10, 129:20,	155:6, 194:4, 199:4	11:16, 11:24, 12:3,
consistency [2] -	controls [1] - 51:3	130:2, 130:16, 131:16, 132:10,	corresponding [1] -	12:8, 12:22, 14:2,
81:20, 99:17	convened [1] - 36:13	131:10, 132:10,	80:8	17:17, 17:21, 41:4,
consistent [2] - 48:3,	conversations [4] -	133:4, 133:19,	cost [1] - 164:16 counsel [6] - 7:17,	41:9, 42:20, 42:24,
113:11	125:12, 125:16,	133:20, 134:15,	72:25, 106:15,	45:19, 46:2, 57:16, 61:13, 61:23, 62:2,
consists [1] - 199:14	125:18, 130:6	134:21, 135:2,	106:18, 132:2,	65:15, 65:18, 70:18,
constitutes [1] - 98:18	convey [1] - 160:10	135:8, 135:16,	183:18	70:25, 72:15, 75:11,
constituting [1] -	copied [1] - 132:2	137:3, 137:6,	count [1] - 22:13	76:3, 76:14, 77:14,
194:19	copies [2] - 204:15,	137:14, 137:24,	counties [5] - 167:18,	78:5, 78:10, 78:21,
consultation [1] - 36:6 consultative [1] -	204:17	138:5, 138:9,	168:5, 175:14,	79:8, 79:10, 91:2,
42:13	Corporation [1] - 164:4	138:14, 138:17,	176:15, 189:17	98:18, 99:13,
consulted [1] - 175:7		138:25, 139:2,	countries [1] - 99:2	105:16, 105:22,
consulting [1] - 43:6	correct [227] - 4:22, 4:23, 5:25, 6:9,	139:7, 139:18,	country [8] - 34:6,	106:5, 106:24,
contained [1] - 43:25	14:10, 14:15, 19:12,	140:3, 140:10,	36:17, 93:19, 98:24,	107:22, 108:19,
contains [1] - 65:25	21:20, 24:20, 25:3,	140:11, 140:14,	114:24, 115:25,	108:25, 109:7,
contested [1] - 9:25	26:9, 26:10, 27:7,	141:9, 141:12, 141:19, 141:24,	134:6, 156:11	109:9, 109:16,
context [12] - 18:23,	27:21, 28:7, 32:4,	141:19, 141:24, 142:4, 142:5,	COUNTY [1] - 1:2	109:22, 112:7,
22:21, 22:23, 23:12,	33:2, 33:19, 34:19,	142:4, 142:5, 142:15, 142:16,	County [40] - 1:15,	112:11, 112:14,
30:3, 30:18, 30:25,	35:20, 35:21, 37:3,	142:13, 142:10,	1:21, 3:3, 3:13, 3:15,	115:12, 132:19, 152:3, 161:18
31:4, 36:10, 49:25,	37:9, 38:2, 39:14,	143:7, 143:22,	3:18, 4:7, 99:23,	152:3, 161:18,
		, ,		

decision [12] - 76:5,

76:10, 114:16,

162:10, 162:24, 163:4, 163:10, 163:14, 171:7, 171:9, 174:4, 174:6, 174:9, 174:13, 174:16, 174:19, 176:5, 181:19, 182:12, 182:17, 186:16, 186:19, 186:23, 190:6, 196:9, 196:11, 196:14, 198:12, 200:9, 203:14, 203:17, 203:19 Court [33] - 1:12, 3:2, 12:16, 13:24, 18:4, 18:8, 22:19, 22:21, 23:8, 43:4, 46:11, 50:17, 60:19, 65:22, 71:2, 71:6, 72:24, 73:2, 73:7, 73:10, 74:10, 74:19, 76:21, 102:10, 106:17, 117:12, 122:19, 134:25, 151:25, 172:17, 203:20, 204:7, 204:21 Court's [4] - 48:23, 77:15, 78:22, 115:8 courtesy [2] - 24:24, courthouse [1] - 18:3 courtroom [3] - 18:3, 18:6, 131:2 courts [2] - 9:13, 18:10 Cousin [3] - 161:21, 162:11, 163:12 cover [1] - 79:18 covered [2] - 129:18, 167:24 craving [1] - 66:18 created [6] - 9:3, 62:6, 65:25, 66:7, 106:21, 170:19 creating [1] - 155:4 creative [1] - 197:20 credentials [1] - 76:4 crimes [1] - 138:13 crisis [6] - 94:20, 95:22, 144:20, 148:6, 151:6, 151:13 criteria [8] - 89:24, 177:15, 177:19, 177:22, 190:22, 190:25, 191:5, 191:13 criterion [1] - 191:9 critically [1] - 81:9 cross [2] - 61:16, 74:2

CROSS [1] - 152:10 cross-examination [1] - 61:16 **CROSS-EXAMINATION**[1] -152:10 crying [1] - 66:19 CSR [3] - 2:20, 204:6, 204:20 culled [1] - 198:20 curb [1] - 202:2 curious [1] - 162:12 current [3] - 4:24, 6:10, 167:4 curriculum [3] - 29:8, 29:11, 29:13 cycle [2] - 169:22, 170:22

D

daily [1] - 23:15 data [23] - 38:10, 38:21, 38:24, 41:20, 46:20, 57:3, 57:23, 58:24, 84:2, 91:9, 95:24, 96:19, 98:17, 111:12, 139:12, 139:16, 140:3, 140:6, 141:22, 142:3, 166:12, 202:8 database [1] - 142:11 date [1] - 29:3 dates [1] - 135:18 dating [1] - 55:24 days [1] - 78:16 deadly [3] - 16:3, 55:4, 171:17 deal [3] - 24:11, 34:8, 184:8 Dealer [3] - 26:8, 60:16, 157:5 dealers [1] - 145:7 dealing [1] - 29:17 deals [1] - 6:7 death [3] - 84:18, 85:6, 176:15 deaths [7] - 28:9, 58:8, 58:18, 96:21, 104:18, 104:20, 105:5 debate [1] - 201:25 decade [1] - 115:23 decades [4] - 55:12, 57:8, 90:3, 97:9 decedent [1] - 175:25 December [1] - 83:4 decided [1] - 76:19 deciding [3] - 116:15, 120:9, 120:16

119:24, 164:25, 165:9, 165:12, 165:15, 165:19, 165:20, 165:21, 169:16 decisions [7] - 74:20, 119:19, 126:20, 169:6, 169:7, 171:2, 171:3 declare [1] - 42:7 decreased [1] - 116:2 deem [1] - 87:7 deemed [1] - 73:15 deeply [1] - 102:19 Defendant [19] -114:2, 119:23, 120:22, 121:5, 147:14, 159:3, 159:12, 179:9, 179:11, 179:21, 179:23, 180:3, 180:7. 184:21. 186:15, 187:6, 187:11, 187:15, 188:2 Defendant's [1] -113:23 Defendants [37] - 4:5, 5:7, 7:14, 10:22, 42:24, 42:25, 47:19, 72:10, 72:12, 75:15, 99:11, 121:21, 127:23, 130:5, 137:14, 138:11, 138:12, 146:4, 146:9, 146:14, 147:11, 168:8, 178:25, 179:15, 181:10, 181:16, 182:3, 182:6, 183:2, 183:14, 183:18, 184:3, 185:6, 186:5, 186:11, 187:23, 201:2 Defendants' [11] -76:22, 77:2, 77:19, 106:19, 123:16, 124:4, 125:2, 125:10, 135:15, 135:21, 136:8 defense [4] - 70:21, 106:14, 131:25, 132:2 defined [3] - 23:23, 24:4, 61:20 definition [9] - 23:3, 23:7, 52:9, 52:24, 53:3, 53:7, 53:18,

54:20, 61:9 definitions [2] - 51:14, 54:18 definitive [1] - 202:8 degree [8] - 19:11, 50:9, 81:4, 110:12, 112:8, 148:23, 150:2, 187:16 degrees [2] - 111:3, 111:14 **delay** [1] - 7:6 Delgado [2] - 91:25, 92:23 demand [1] - 202:16 demonstrating [1] -21:6 demonstrative[1] -113:15 dental [1] - 92:9 Department [4] -17:12, 19:21, 24:22, 73:5 dependence [6] -20:15, 23:11, 23:14, 24:13, 25:8, 95:3 dependent [6] - 16:13, 46:24, 169:24, 173:15, 202:3, 202:14 depicting [1] - 91:8 deposed [2] - 115:3, 154:8 deposition [39] - 8:7, 9:4, 9:21, 9:22, 115:7, 115:18, 116:10, 118:18, 118:19, 118:24, 119:10, 120:4, 121:12, 121:16, 122:14, 130:25, 131:16, 132:3, 132:4, 132:7, 132:12, 133:23, 134:19, 134:22, 144:6, 153:16, 153:18, 153:21, 154:12, 159:7, 164:6, 174:24, 182:9, 183:8, 183:16, 183:20, 184:24, 185:3, 185:11 depositions [1] -180:2 depression [1] -117:15 depth [4] - 38:7, 40:18, 43:11, 67:23 deputy [2] - 161:22, 161:24

derived [1] - 38:23 210 deriving [1] - 44:10 describe [8] - 30:16, 58:3, 100:3, 101:3, 101:6, 123:17, 164:11, 191:8 described [7] - 29:16, 56:20, 59:12, 88:5, 101:4, 101:7, 179:4 describing [1] -119:19 description [2] - 21:7, 25:22 designed [3] - 33:19, 154:5, 154:14 designee [1] - 18:11 desire [1] - 81:24 despite [5] - 23:25, 42:11, 52:17, 98:22, 145:9 detail [2] - 166:20, 166:21 detailers [2] - 200:18 detailing [15] - 31:16, 31:20, 33:25, 34:2, 34:5, 34:13, 34:24, 79:18, 79:22, 81:15, 81:25, 82:3, 82:4, 82:12, 82:14 details [4] - 129:17, 180:6, 180:11, 180:15 detect [1] - 97:22 determine [11] - 8:2, 25:20, 38:8, 50:8, 81:14, 89:12, 128:4, 128:19, 128:23, 176:16, 178:22 determining [1] -195:20 develop [6] - 24:11, 29:8, 29:11, 61:23, 64:6, 92:10 developed [3] - 22:8, 99:2, 99:6 development [3] -194:14, 194:23, 195:2 diagnosed [3] - 91:16, 92:13, 176:2 diagnosee [1] -176:22 diagnosing [4] -177:5, 177:9, 177:16, 191:9 **Diagnosis** [2] - 17:9, 18:21 diagnosis [7] - 18:23, 175:20, 176:16, 176:19, 178:3,

470 40 400 00
178:13, 190:22
diagnostic [4] -
190:22, 190:25,
191:5, 191:9
Diagnostic [2] - 24:7,
53:20
die [2] - 28:18, 51:6
difference [4] - 54:18,
67:19, 68:22, 100:8
differences [4] -
97:23, 97:24, 98:14,
112:22
different [19] - 10:24,
11:10, 15:19, 34:21,
42:16, 44:9, 53:18,
55:12, 67:7, 72:6,
75:18, 75:24, 88:2,
88:4, 88:9, 100:6,
131:6, 192:4
differently [2] -
133:24, 181:2
digging [1] - 41:3
DIRECT [1] - 14:5
direct [9] - 71:2,
73:25, 77:9, 78:23,
159:6, 177:4,
182:21, 185:2,
188:13
directed [2] - 72:24,
72:25
direction [2] - 13:24,
44:9
-
directly [2] - 124:5,
140:17
Director [2] - 17:10
disagree [1] - 136:5
disagreed [2] - 44:2,
44:5
discern [1] - 10:10
discipline [1] - 149:6
disclose [1] - 126:16
disclosed [7] - 7:18,
8:19, 9:8, 10:21,
130:5, 130:8, 193:6
discloses [2] - 42:15,
43:6
disclosure [1] - 7:14
disconnected [1] -
112:6
discover [1] - 48:7
discovered [2] -
35:23, 48:8
discovery [4] - 8:14,
9:14, 71:4, 71:24
discuss [4] - 15:15,
36:19, 62:4, 83:8
discussed [6] - 31:8,
36:5, 79:19, 97:12,
, - · -, - · · - ,
147:19. 148:9
147:19, 148:9 discusses [1] - 32:2

```
disease [5] - 23:23,
 52:11, 56:8, 117:13,
 202:10
Disease [4] - 57:23,
 84:2, 84:13, 85:18
diseases [1] - 52:21
disorder [31] - 18:25,
 20:13, 22:8, 24:5,
 24:6, 24:12, 28:3,
 54:2, 54:20, 58:22,
 64:6, 90:21, 91:6,
 91:17, 92:10,
 117:13, 117:15,
 117:16, 175:17,
 175:19, 176:3,
 176:17, 176:19,
 176:23, 177:6,
 177:10, 177:16,
 178:3, 178:13,
 191:10, 194:15
Disorders [2] - 24:8,
 53:21
disorders [1] - 19:21
dispense [1] - 173:23
dispensed [4] -
 137:14, 142:8,
 178:24, 201:9
dispenses [1] -
 173:15
dispute [1] - 106:12
disregarding [1] -
 178:14
disseminated [1] -
 63:7
distinction [2] -
 113:16, 114:5
distinguished [1] -
 113:9
distributed [8] -
 62:25, 137:13,
 166:24, 167:8,
 167:15, 169:13,
 178:24, 201:9
distribution [12] -
 152:21, 153:5,
 153:24, 166:13,
 166:17, 166:19,
 168:3, 168:7,
 168:20, 170:15,
 180:11, 181:2
distributor [5] - 144:8,
 152:15, 159:3,
 159:11, 169:18
distributor's [2] -
 153:4, 153:22
distributors [22] -
 61:9, 143:17,
 143:21, 144:2,
```

144:15, 160:16,

160:17, 160:21,

```
161:2, 161:5, 161:6,
 161:9, 161:15,
 162:16, 162:17,
 162:20, 168:16,
 169:9, 170:5,
 170:14, 171:5, 201:8
distributors' [1] -
 153:11
DITTA[1] - 73:4
Ditta [1] - 73:16
divergent [1] - 49:7
diverse [1] - 103:24
diversion [8] - 16:16,
 103:24, 142:21,
 143:8, 143:13,
 144:10, 144:20,
 144:22
diverted [2] - 143:4,
 143:17
Doctor [24] - 12:3,
 23:6, 26:5, 39:4,
 41:11, 44:19, 47:13,
 47:17, 51:21, 56:20,
 57:17, 57:22, 58:18,
 60:8, 65:24, 68:10,
 78:7, 80:23, 88:11,
 92:15, 100:12,
 101:17, 102:21,
 105:13
doctor [67] - 12:4,
 15:12, 17:7, 22:25,
 28:21, 31:12, 33:10,
 39:12, 41:4, 54:16,
 55:24, 56:7, 57:2,
 61:13, 62:4, 62:23,
 64:5, 74:5, 79:17,
 84:10, 90:10, 98:18,
 99:15, 104:25,
 106:8, 109:7, 112:7,
 114:19, 114:25,
 116:4, 116:8,
 117:20, 118:2,
 119:6, 120:15,
 140:21, 141:8,
 141:10, 141:14,
 141:17, 141:22,
 142:8, 142:14,
 143:6, 149:15,
 149:16, 153:15,
 164:23, 164:24,
 165:7, 165:8,
 165:12, 165:22,
 169:15, 169:19,
 170:23, 171:7,
 172:11, 172:18,
 172:22, 173:3,
 173:11, 185:25,
 198:17, 199:15,
 201:10, 203:12
doctor's [4] - 31:24,
```

```
76:23, 114:16,
 165:15
doctor-caused [1] -
 55:24
doctors [75] - 16:5,
 27:24. 48:14. 55:8.
 55:19, 56:3, 56:12,
 60:11, 60:16, 60:20,
 60:21, 62:11, 81:17,
 97:21, 98:2, 98:4,
 98:5, 98:9, 98:10,
 114:2, 116:5.
 116:12, 117:19.
 118:5, 118:7,
 118:11, 118:13,
 119:3, 119:13,
 119:17, 119:22,
 120:8, 120:20,
 121:7, 121:18,
 122:6, 123:3,
 126:20, 129:19,
 137:20, 138:2,
 138:4, 138:5,
 138:21, 139:17,
 139:25, 140:10,
 140:18, 140:25,
 141:5, 141:11,
 146:18, 147:17,
 147:18, 147:19,
 148:6, 149:6,
 155:20, 155:24,
 156:6, 165:24,
 166:7, 169:24,
 170:4, 170:13,
 171:5, 173:19,
 188:14, 188:17,
 188:18, 191:20,
 194:9, 200:20
doctors' [4] - 157:19,
 158:11, 158:17,
 170:25
document [13] -
 70:16, 71:8, 72:4,
 72:14, 85:21, 86:3,
 107:2, 107:8,
 107:10, 164:5,
 164:7, 164:10,
 164:11
documents [26] -
 7:22, 9:10, 9:18,
 9:20, 32:12, 32:16,
 32:17, 32:24, 47:24,
 47:25, 70:10, 72:19,
 86:7, 107:13,
 107:17, 107:20,
 131:25, 132:4,
 163:19, 163:25,
 164:8, 164:15,
 179:4, 179:8,
 179:20, 179:22
```

```
domain [1] - 32:11
done [10] - 33:15,
 34:12, 68:13, 94:9,
 108:21, 123:25,
 163:9, 178:17,
 192:23, 193:24
Donna [1] - 5:6
door [1] - 147:24
dopamine [1] - 50:24
Dosage [1] - 84:11
dosage [2] - 86:5,
 87:13
dosages [3] - 84:4,
 84:17, 84:19
dose [10] - 23:17,
 47:3, 56:14, 65:8,
 66:15, 67:11,
 194:18, 194:21,
 195:7, 195:11
doses [10] - 65:3,
 83:11, 83:12, 83:16,
 84:21, 85:4, 85:5,
 85:9, 85:10, 155:20
double [1] - 71:13
double-check [1] -
 71:13
down [18] - 5:14, 17:5,
 47:14, 51:4, 59:9,
 60:6, 73:5, 74:22,
 90:9, 114:14,
 123:11, 160:15,
 163:14, 172:7,
 182:23, 186:24,
 190:10
DR [2] - 12:7, 12:11
Dr [66] - 1:10, 4:21,
 5:2, 5:4, 7:19, 9:3,
 12:2, 12:14, 12:22,
 14:7, 18:19, 39:16,
 39:19, 42:15, 42:21,
 43:5, 46:6, 65:25,
 72:9, 75:9, 75:19,
 107:10, 107:15,
 110:4, 112:16,
 113:22, 114:8,
 115:4, 115:14,
 115:16, 116:10,
 119:9, 121:15,
 122:8, 122:14,
 126:7, 126:13,
 126:16, 128:14,
 129:9, 129:13,
 135:22, 136:11,
 139:24, 151:15,
 151:21, 152:12,
 153:15, 154:8,
 154:20, 158:16,
 159:6, 162:21,
 163:18, 171:10,
 173:9, 174:23,
```

176:9, 182:19,	easier [3] - 64:16,	elsewhere [2] - 55:7,	102:14, 148:16,	159:8 212
187:4, 190:12,	148:17, 148:18	100:14	150:8, 150:21,	exactly [1] - 13:18
201:6, 203:14	easy [1] - 103:14	Emergency [1] - 92:24	192:6, 198:19, 200:2	Exalgo [2] - 127:14,
draw [1] - 167:20	econometrician [1] -	emergency [2] -	Epidemic [1] - 101:21	137:8
draws [1] - 113:15	192:11	85:13, 147:23	epidemiologic [1] -	exam [1] - 21:11
driven [1] - 95:5	econometrics [3] -	emphasize [1] - 63:16	69:14	examination [11] -
driving [1] - 98:9	111:9, 111:15,	employ [2] - 50:3,	epidemiological [1] -	9:11, 9:24, 23:9,
Drug [5] - 20:6, 26:8,	192:14	67:12	178:16	61:16, 74:2, 78:23,
60:16, 103:6, 157:5	economic [1] - 111:12	employed [3] - 67:8,	equivalence [1] -	88:6, 105:9, 106:13,
drug [29] - 34:10,	economist [1] -	122:21, 177:2	84:20	190:15
53:16, 66:18, 83:6,	110:10	employees [2] -	equivalent [1] - 60:2	EXAMINATION[5] -
86:13, 90:20, 95:25,	Ed [1] - 174:24	175:10, 180:3	Er [1] - 127:9	14:5, 110:2, 152:10,
103:9, 103:18,	edition [1] - 24:8	employing [1] - 46:6	errata [2] - 183:16,	174:21, 190:8
104:5, 124:15,	editor [4] - 44:24,	employment [1] -	185:15	examine [2] - 124:2,
124:17, 128:22,	45:2, 46:9, 46:22	110:15	error [1] - 179:4	124:19
128:24, 141:23,	educate [1] - 166:7	empower [1] - 180:16	ESQ [6] - 1:16, 1:17,	examined [2] - 89:9,
142:3, 142:10,	education [4] -	enable [1] - 25:3	1:17, 1:22, 1:23,	123:14
145:6, 165:16,	149:10, 160:7,	end [2] - 152:7, 199:17	2:10	examiner [1] - 163:2
195:21, 195:24,	189:7, 200:19	endangering [1] -	essence [1] - 54:22	examining [2] - 46:7,
196:21, 196:22,	educational [4] -	56:15	essential [1] - 30:19	109:19
196:24, 196:25, 200:18, 202:15	63:10, 64:9, 77:21,	ended [1] - 158:5	essentially [8] - 21:3,	example [21] - 13:5,
drugs [9] - 32:3, 45:6,	160:25	Endo [2] - 42:17,	24:9, 41:11, 45:3,	26:18, 33:15, 39:9,
102:12, 103:16,	effect [22] - 56:9,	133:8	55:18, 74:22, 95:23,	43:14, 56:22, 62:19,
103:17, 127:18,	75:12, 76:22, 80:7,	Enforcement [1] -	141:11	80:6, 91:10, 92:3, 116:17, 122:7,
194:23, 195:17,	100:15, 100:18,	20:6	established [2] -	127:8, 134:25,
196:18	100:25, 101:12, 102:23, 104:9,	enforcement [1] -	47:17, 66:25 esteemed [1] - 53:15	141:3, 146:3,
DSM [7] - 53:22,	106:15, 145:13,	175:14	estimate [2] - 135:4,	165:16, 178:7,
53:23, 89:24,	156:17, 156:20,	engage [4] - 5:21, 34:6, 52:16, 140:24	167:6	180:10, 191:16,
177:15, 177:19,	160:11, 191:25,	engaged [4] - 37:14,	estimated [1] - 43:7	191:22
177:22	197:3, 197:14,	54:16, 62:5, 64:12	et [4] - 18:15, 43:8,	examples [3] - 16:7,
DSM-IV [1] - 89:24	197:18, 197:24,	engagement [1] -	55:5, 60:12	79:22, 131:8
DSM-V [1] - 89:24	198:6, 198:23	192:16	evaluate [2] - 178:21,	excellence [1] - 21:22
dual [2] - 18:20, 18:23	effective [13] - 16:6,	engagements [1] -	180:18	exchange [1] - 71:8
Dual [2] - 17:9, 18:20	39:23, 41:14, 56:13,	35:9	evaluating [2] - 49:11,	exchanged [1] - 71:5
due [3] - 85:6, 140:9,	60:12, 60:24, 66:14,	Engineering [1] -	177:25	exclude [1] - 43:25
144:11	67:6, 69:16, 127:2,	95:13	event [9] - 6:4, 9:23,	excluding [1] - 76:25
duly [1] - 12:15	128:4, 128:19,	engineering [1] -	11:18, 11:21, 13:21,	exclusively [2] -
Dunn [3] - 85:25,	128:24	95:21	72:22, 85:11, 86:14,	96:16, 178:15
86:10, 86:22	effectiveness [1] -	England [2] - 45:2,	90:15	excuse [4] - 41:4,
duped [7] - 60:17, 60:20, 60:21, 62:11,	43:15	157:24	events [2] - 57:25,	72:11, 182:22,
129:12, 188:14,	effects [3] - 40:23, 41:16, 50:21	enjoy [1] - 163:15	90:5	185:23 excused [1] - 203:17
188:17	efficacious [1] -	enormous [1] - 98:16	evidence [34] - 16:9,	exercise [3] - 165:25,
Duragesic [1] - 127:12	195:21	ensure [2] - 5:13,	29:14, 40:7, 40:15, 40:17, 40:20, 42:12,	166:5, 180:17
duration [5] - 47:7,	efficacy [9] - 30:6,	173:19 entered [2] - 11:6,	44:10, 46:21, 47:5,	exercising [1] -
194:18, 194:22,	30:13, 30:25, 36:12,	72:16	48:11, 49:4, 49:6,	188:19
195:7, 195:11	47:21, 48:10, 48:12,	entire [2] - 186:21,	49:7, 49:13, 49:15,	Exhibit [2] - 106:18,
during [6] - 5:3, 9:23,	160:11, 196:5	187:10	49:20, 49:25, 50:4,	106:20
47:16, 78:23,	efforts [5] - 52:19,	entirely [2] - 10:24,	56:21, 69:10, 70:2,	exhibit [6] - 9:25,
142:25, 143:5	76:23, 77:3, 77:21,	165:14	72:20, 73:21, 74:9,	11:18, 106:19,
duty [1] - 187:17	201:25	entirety [1] - 44:21	80:20, 101:23,	106:21, 107:2
dying [1] - 97:4	eight [2] - 89:16,	entities [3] - 73:22,	109:3, 113:11,	exhibits [1] - 10:5
dynamic [1] - 8:25	89:25	151:5, 151:12	113:24, 126:25,	exist [4] - 135:16,
	either [7] - 99:22,	entitled [4] - 84:10,	129:4, 198:24	135:22, 136:4,
E	110:21, 124:8,	91:4, 101:20, 204:11	Evidence [1] - 41:15	136:10
early [6] - 8:5, 14:9,	161:10, 161:15, 170:17, 176:15	entity [1] - 150:15	evidence-based [3] -	expansion [1] - 95:2
55:25, 70:25, 105:8,	170:17, 176:15 elicit [3] - 8:10, 75:3,	epidemic [13] - 16:18,	49:15, 49:20, 50:4	expect [1] - 11:3
155:2	202:4	16:19, 27:2, 36:15,	evident [1] - 40:19 exact [2] - 135:18,	expected [1] - 116:12
	202.7	55:24, 102:5,	GAGC[2] = 100.10,	expedite [1] - 12:24

experience [26] -23:18, 48:16, 48:21, 49:5, 49:7, 49:12, 49:23, 49:24, 54:15, 68:2, 81:16, 82:19, 96:23, 96:25, 97:9, 110:9, 110:16, 110:23. 118:3. 123:21, 123:23, 152:13, 153:14, 177:11, 193:21 experiences [4] -52:13, 81:16, 82:15, 117.22 expert [14] - 4:22, 5:10, 6:8, 6:14, 9:14, 10:25, 45:23, 71:25, 111:19, 126:6, 131:20, 131:24, 136:2, 157:3 expert's [2] - 8:24 expertise [9] - 21:6, 21:10, 113:6, 152:17, 152:20, 152:23, 153:3, 153:10, 153:22 experts [5] - 5:15, 6:19, 25:20, 53:9, 95:19 explain [10] - 22:20, 48:20, 59:23, 60:19, 63:25, 84:24, 94:15, 100:17, 105:2, 201:22 explained [1] - 62:10 exponential [1] - 95:5 exposed [2] - 92:9, 92:12 exposure [1] - 91:5 expressed [2] -188:13, 193:19 expressing [1] - 82:19 expressly [1] - 76:20 extensive [2] - 43:6, 75:20 extent [4] - 100:5, 129:11, 148:5, 150:19 extremely [1] - 45:17

F

face [1] - 196:3 facie [1] - 95:24 facilitated [1] - 103:14 facilities [3] - 142:24, 142:25, 143:5 fact [29] - 9:24, 26:24, 42:12, 42:14, 56:9, 62:5, 63:14, 63:23,

64:13, 65:5, 65:10, 65:18, 73:19, 74:7, 86:9, 98:22, 118:5, 134:18, 143:20, 169:18, 170:4, 187:9, 193:2, 194:6, 195:20, 197:8, 197:21, 203:10 factor [5] - 117:7, 122:22, 168:23, 194:20, 194:23 Factors [2] - 199:23, 201.6 factors [15] - 116:18, 116:23, 116:25, 120:8, 120:15, 122:23, 137:16, 151:5, 151:12, 151:17, 194:14, 195:2, 199:25, 200:3, 200:4 facts [2] - 157:12, 157:14 faculty [1] - 19:4 failed [1] - 126:16 fair [22] - 13:24, 15:8, 21:7. 25:22. 30:24. 31:22, 62:7, 68:4, 85:15, 86:6, 108:25, 136:18, 136:20, 139:3, 140:19, 140:20, 142:9, 144:18, 148:20, 150:15, 178:10, 188:21 faith [1] - 189:25 false [8] - 62:6, 63:25, 65:10, 65:12, 158:25, 159:10, 184:21, 185:4 falsehood [1] - 63:23 falsity [1] - 33:6 familiar [7] - 9:8, 22:18, 31:15, 31:19, 49:16, 188:24, 190:25 family [2] - 103:15, 117:4 far [4] - 29:16, 77:9, 168:6, 182:5 fashion [1] - 51:25 **faulty** [1] - 166:5 FDA [21] - 30:10, 83:5, 110:24, 127:4, 127:8, 128:3, 128:19, 128:23, 129:4, 129:9, 146:22, 148:10,

148:15, 148:19,

148:24, 195:13,

195:16, 195:21, 196:3, 196:17, 196:20 feasible [1] - 103:25 feature [1] - 103:17 federal [3] - 35:14, 111:24, 113:3 Federation [4] -146:25, 150:7, 160:8, 161:13 feed [2] - 169:22, 170:21 feeding [1] - 45:23 fees [2] - 42:12, 42:13 fellows [1] - 29:6 Fellowship [1] - 17:11 fellowship [1] - 19:20 fentanyl [1] - 95:5 few [6] - 10:6, 12:23, 150:11, 175:3, 190:14, 190:18 fewer [2] - 134:25, 136:25 field [10] - 23:21, 25:20, 53:4, 53:9, 87:5, 110:16, 110:20, 111:9, 111:11, 194:2 figure [3] - 49:8, 87:22, 94:21 figured [1] - 48:21 figures [1] - 79:19 filed [4] - 7:13, 106:22, 159:21, 159:22 files [5] - 47:20, 179:9, 179:13, 179:21, 179:23 fill [1] - 173:5 filled [3] - 166:18, 181:6, 189:24 filling [1] - 189:18 films [1] - 17:25 final [2] - 93:2, 189:21 financial [2] - 42:7, 42:12 finder [1] - 73:19 findings [3] - 61:14, 93:12, 98:17 fine [1] - 136:11 Fine [2] - 42:15, 42:21 fingers [1] - 65:16 finish [3] - 79:3, 82:25, 121:23 finished [4] - 43:22, 53:11, 202:7, 202:24 finishing [1] - 202:23 first [19] - 8:21, 10:23,

12:15, 23:14, 26:15,

37:20, 39:19, 46:15,

51:7, 70:13, 92:19,

101:22, 106:5, 108:5, 110:8, 155:10, 177:4, 185:22, 190:16 fit [1] - 75:5 five [7] - 7:6, 26:25, 43:8, 44:25, 82:9, 135:4, 162:15 five-second [1] - 7:6 fivefold [3] - 60:4, 167:4, 167:6 fix [1] - 186:22 fly [1] - 10:10 flying [1] - 65:17 focus [3] - 114:12, 130:7, 144:13 focused [2] - 130:3, 133:16 focusing [2] - 73:10, 114:14 folks [8] - 37:8, 43:12, 58:21, 58:25, 97:7, 119:25, 124:22, 199.8 follow [3] - 122:4, 179:5, 188:16 follow-up [3] - 122:4, 179:5, 188:16 followed [1] - 43:18 following [7] - 19:17, 19:20, 28:5, 55:18, 105:25, 115:20, 154:24 follows [1] - 12:16 foot [1] - 14:24 footnote [2] - 84:12, 93:2 Footnote [1] - 84:14 footnotes [3] - 85:19, 92:16 forbidden [1] - 18:9 forgot [1] - 57:7 form [4] - 80:16, 139:20, 177:14, 181:18 formed [2] - 29:13, 130:19 forming [18] - 48:15, 120:6, 123:13, 123:20, 124:12, 124:20, 125:20, 126:8, 126:12, 130:4, 130:13, 132:9, 142:3, 143:13, 172:14, 177:8, 193:18 forms [1] - 202:12 formulary [3] - 147:4,

150:19, 150:25

forth [6] - 38:11,

38:22, 74:7, 87:14-21 88:16, 167:7 forward [2] - 169:22, 170:21 foundation [2] -73:20, 73:22 foundational [1] -81:8 founded [2] - 38:6, 80:21 four [7] - 43:8, 57:11, 82:9, 85:22, 135:4, 167:4, 167:6 fourfold [7] - 16:2, 55:3, 57:11, 59:9, 59:12, 105:6, 171:16 framework [1] - 75:6 frequently [1] - 46:16 Friday [3] - 4:12, 4:15, 5:3 friends [1] - 103:15 front [2] - 37:22, 167:22 Frye [5] - 5:14, 5:22, 6:5, 9:11, 11:13 FRYE [1] - 1:10 Fryebert [1] - 74:16 full [2] - 19:17, 178:3 function [1] - 64:14 funded [1] - 38:14 furthermore [4] -40:10, 40:18, 64:8, 202:9 Furthermore [1] -204:12

G

gain [1] - 74:9 gained [1] - 55:17 Garguilo [20] - 3:4, 21:2, 30:17, 35:22, 58:3, 59:22, 59:23, 68:7, 68:12, 84:25, 88:6. 89:6. 94:15. 96:17, 97:19, 100:4, 100:12, 105:3, 190:21, 201:22 **GARGUILO**[1] - 1:12 Garguilo's [1] - 99:16 gateway [21] - 74:23, 75:11, 75:12, 100:15, 100:18, 100:25, 101:12, 101:25, 102:23, 104:9, 156:16, 156:20, 197:3, 197:14, 197:18, 197:24, 198:6, 198:23, 199:2,

203:2, 203:11 gather [1] - 39:4 gears [3] - 123:3, 158:21, 181:13 General [3] - 2:3, 2:3, 2.5 general [8] - 17:24, 73:13, 74:4, 75:2, 87:9, 101:2, 170:17, 171:17 General's [1] - 3:21 generally [14] - 52:20, 58:25, 74:10, 100:2, 100:4, 137:18, 155:15, 155:21, 155:24, 156:4, 156:9, 164:14, 176:21, 195:6 generic [2] - 127:18, 127:19 genuinely [1] - 188:18 geographic [4] -97:23, 98:13, 116:2, 184:17 geographically [1] -98:14 given [6] - 30:21, 36:2, 124:19, 125:7, 132:2, 159:18 gonna [2] - 14:22, 38:2 govern [1] - 110:24 government [2] -150:11, 150:14 Governor [1] - 29:20 governors [1] - 36:16 graph [7] - 58:4, 58:6, 85:3, 85:8, 85:24, 85:25, 89:7 graphs [3] - 84:3, 85:2, 85:14 green [1] - 58:12 ground [1] - 49:21 grows [3] - 16:2, 55:3, 171:15 Guerra [1] - 73:3 GUERRA [1] - 73:3 guess [1] - 104:25 guidelines [2] - 150:7, 191:13

Н

habits [3] - 55:14, 99:18, 191:17 Hague [1] - 204:6 HAGUE [1] - 204:20 half [1] - 42:8 halfway [1] - 186:23 hallway [1] - 18:7

halo [1] - 56:9 hand [4] - 12:13, 18:24, 95:11, 151:8 handed [2] - 71:5, 113:19 handled [2] - 71:5, 181.2 handy [2] - 154:22, 193:10 Hanly [14] - 3:12, 17:17, 61:23, 70:18, 71:22, 72:23, 74:18, 77:6, 78:14, 114:11, 156:16, 157:4, 190:6, 200:9 hanly [1] - 76:17 HANLY [75] - 1:14, 1:16, 3:12, 4:23, 8:17, 11:25, 14:4, 14:6, 15:10, 17:20, 18:17, 18:18, 41:10, 42:23, 42:25, 43:3, 44:16, 44:18, 46:4, 46:5. 47:13. 47:15. 51:17. 51:19. 53:11. 53:13, 57:19, 57:21, 59:15, 59:17, 60:5, 60:7, 61:25, 62:3, 62:18, 62:22, 65:13, 65:17, 65:21, 65:23, 66:4, 66:6, 70:5, 70:19, 75:7, 75:12, 79:5, 79:16, 84:7, 84:9, 88:20, 88:22, 90:23, 91:3, 94:6, 94:8, 99:14, 101:14, 101:16, 102:25, 103:3, 104:22, 104:24, 105:13, 106:2, 106:11, 181:18, 187:3, 190:7, 190:9, 190:10, 196:13, 196:16, 201:10, 203:12 happy [3] - 79:5, 135:24, 145:14 Harbaugh [3] - 68:15, 198:2, 198:3 hard [7] - 10:9, 42:2, 130:17, 134:19, 157:10, 169:21, 170.7 harder [4] - 64:13, 128:13, 165:4, 186:17 harm [3] - 23:25,

83:13, 83:17

harmed [1] - 146:2

harmful [1] - 52:17

harms [9] - 88:17, 96:5, 146:5, 146:15, 146:19, 146:22, 149:23, 191:18, 191:23 headed [1] - 68:8 heading [1] - 69:9 heads [1] - 65:20 heads-up [1] - 65:20 health [7] - 36:5, 40:23, 41:16, 91:23, 94:18, 94:19, 178:9 Health [5] - 10:19, 61:3, 71:19, 94:13, 163:20 healthcare [22] -31:25, 32:2, 32:8, 32:14, 33:21, 34:8, 34:17, 38:25, 45:5, 47:4, 47:9, 52:6, 57:6, 68:4, 121:9, 168:15, 169:5, 169:7, 169:16, 171:2, 173:16, 194:2 hear [13] - 12:4, 12:5, 12:10, 13:21, 22:17, 30:3, 54:13, 128:8, 128:11. 128:12. 128:13, 128:15, 198:13 heard [8] - 49:15, 54:4, 54:7, 81:22, 82:18, 107:4, 107:22, 163:10 hearing [7] - 5:14, 5:22, 6:6, 7:4, 8:13, 11:13, 152:7 **HEARING** [1] - 1:10 hearings [4] - 10:5, 12:24, 72:18, 73:10 heart [2] - 11:5, 51:5 heavy [1] - 95:25 heed [1] - 78:21 held [1] - 9:13 help[1] - 186:19 helping [1] - 162:22 hereby [1] - 204:8 Heroin [1] - 68:9 heroin [19] - 68:19, 68:21. 68:22. 100:24. 102:2. 103:19, 145:2, 145:5, 145:10, 145:11, 157:20, 158:12, 158:18,

199:3, 201:16,

202:16, 203:3,

high [6] - 66:15,

67:11, 93:7, 93:8,

203:11

highlight [1] - 40:4 highlighted [3] -39:22, 40:6, 40:11 highly [3] - 50:25, 104:14, 168:4 hired [2] - 157:3, 157:17 historical [2] - 55:23, 56:21 historically [1] - 33:9 history [8] - 46:11, 117:2, 117:4, 168:2, 178:8, 178:9, 178:10, 202:9 hold [2] - 24:21, 190:19 holding [3] - 26:4, 26:7, 100:3 HON [1] - 1:12 Honor [75] - 3:18, 3:25, 4:23, 5:25, 6:9, 7:2, 7:3, 7:7, 7:10, 8:9, 8:13, 8:16, 8:17, 8:24, 9:7, 9:12, 9:17, 10:9, 10:18, 11:15, 11:23, 11:25, 14:4, 17:20, 18:17, 42:23, 45:18, 45:21, 45:25, 49:14, 61:2, 61:18, 61:25, 65:13, 70:5, 70:8, 70:11, 70:17, 70:19, 71:10, 71:14, 71:18, 75:8, 76:13, 77:7, 77:12, 77:25, 78:8, 79:15, 105:21, 105:23, 106:2, 106:11, 107:7, 107:13, 107:21, 108:3, 108:4, 108:22, 109:21, 112:10, 112:13, 151:21, 151:23, 162:22, 163:8, 174:3, 174:20, 176:8, 185:23, 186:20, 190:7, 196:6, 199:12, 203:13 Honorable [1] - 3:4 hope [3] - 14:24, 59:22, 60:9 hopefully [2] - 15:7, 175:4

104:3, 114:18

84:11

155:20

Higher [2] - 84:10,

higher [9] - 84:17,

84:18. 84:20. 85:5.

85:10, 87:13, 91:23,

hospice [1] - 55:16 ²¹⁴ hospital [1] - 45:4 hospitalized [1] - 47:2 hour [5] - 4:16, 4:19, 79:6, 79:10, 152:4 House [2] - 36:7, 36:13 house [1] - 102:16 huge [6] - 47:8, 56:2, 56:15, 114:23, 115:24, 168:23 hundreds [1] - 10:5 Hunter [1] - 3:17 HUNTER [1] - 1:22 hydrocodone [1] -136:7

idea [5] - 10:20, 11:3, 45:16, 49:21, 158:13 identical [1] - 17:2 identified [10] - 7:22, 10:11, 103:22, 119:14, 126:6, 129:23, 130:13, 138:20, 143:12, 189:22 identify [23] - 118:6, 118:12, 119:6, 119:12, 119:17, 119:21, 119:25, 120:3, 126:9, 131:23, 138:24, 141:21, 142:7, 158:25. 159:9. 172:17, 172:22, 180:21, 180:24, 181:5. 184:20. 185:4, 187:14 identifying [1] - 131:8 II [1] - 68:20 **III** [2] - 1:17, 168:2 illegal [2] - 16:18, 102:12 illegally [2] - 142:18, 142:20 illicit [4] - 95:4, 100:24, 102:5, 103:16 illicitly [2] - 145:6, 145:22 illness [3] - 15:25, 51:12, 191:8 images [1] - 18:15 impact [6] - 122:22, 139:4, 140:13, 140:17, 142:13, 144:19 implemented [1] -

inference [1] - 74:8

168:7 importance [1] - 88:7 important [10] - 44:7, 46:14. 46:19. 49:11. 49:22. 49:23. 49:24. 91:15, 136:23, 195:2 importantly [1] - 98:7 importation [1] - 71:2 imposes [1] - 149:9 **impressed** [1] - 76:3 **impression** [2] - 49:9, 82:19 impressions [1] -61:15 improper [2] - 9:11, 141:15 improperly [1] - 142:8 improve [2] - 152:5, 152:8 IN [1] - 1:4 in-depth [3] - 38:7, 43:11, 67:23 inaccuracy [1] - 77:18 inappropriate [3] -108:14, 114:3, 131:11 Inc [1] - 2:8 incidents [1] - 143:13 include [12] - 8:4, 24:15, 28:8, 44:4, 75:10, 117:14, 131:18, 131:20, 138:11, 162:17, 162:19, 186:7 included [4] - 8:6, 27:9, 157:15, 158:7 includes [1] - 156:10 including [19] - 16:13, 18:3, 42:17, 55:5, 72:10, 72:11, 77:17, 85:11, 91:24, 93:16, 94:18, 95:4, 96:2, 100:23, 121:9, 130:21, 149:22, 171:18, 178:8 inclusion [1] - 72:13 inconsistencies [1] -48.9 inconsistency [3] -41:12, 81:21, 81:22 inconsistent [1] -113:11 incorporate [1] - 72:8 incorporating [1] -71:24 incorrect [4] - 119:16, 119:20, 120:25, 139:8 increase [15] - 47:12, 57:10, 57:11, 57:14,

57:24, 59:12, 96:4, 101:24, 104:19, 105:9, 140:8, 154:24, 195:12, 198:25 increased [38] - 16:3, 16:10. 16:12. 16:15. 16:17. 55:4. 58:7. 60:4, 75:13, 77:4, 83:11, 83:12, 83:16, 84:4, 84:5, 84:20, 86:4, 93:19, 96:3, 96:20, 97:2, 98:9, 98:23, 101:25, 105:6, 144:25, 168:15, 168:22, 169:8, 170:13, 170:15, 171:5, 171:16, 172:4, 199:3, 202:16, 203:3 increases [6] - 65:8, 85:7, 85:11, 86:5, 95:3, 95:6 increasing [2] - 85:16, 195:11 independent [1] -165:25 **INDEX** [1] - 1:6 Index [1] - 3:9 indicated [1] - 128:20 indicates [3] - 6:3, 74:12, 84:12 indication [6] -106:25, 127:9, 129:6, 134:11, 178:15, 196:22 indicative [1] - 195:9 individual [10] -117:12, 120:22, 121:21, 124:7, 125:22, 126:9, 126:19, 137:12, 176:23, 177:10 individual's [1] -52:12 individuals [16] -16:11, 16:13, 89:19, 91:13, 92:5, 92:12, 119:7, 130:21, 137:22, 145:2, 151:5, 151:12, 175:6, 175:19, 176:16, 178:21 industry [13] - 16:4, 42:13, 46:18, 60:11, 60:22, 61:7, 61:20, 160:4, 160:20, 160:24, 161:8, 161:13. 186:7 industry's [1] - 16:21

influence [5] - 47:9, 75:23, 146:17, 151:2. 165:18 influences [1] -165:15 inform [1] - 200:20 information [17] -13:3, 13:10, 28:9, 32:3, 32:6, 34:18, 38:8, 41:2, 71:3, 71:4, 72:19, 178:4, 178:9, 184:18, 195:22, 196:20, 196:23 informed [2] - 113:24, 177:11 initiation [4] - 103:13, 157:20, 158:11, 158:18 injection [1] - 103:18 injury [2] - 92:4, 92:6 ink [1] - 204:16 instances [2] - 38:17, 90.4 instead [3] - 53:25, 133:12, 178:15 **institution** [1] - 57:6 **instruction** [1] - 78:22 insufficient [4] -40:20, 40:22, 41:15, 42:11 insurance [4] -139:18, 139:20, 140:2, 147:5 intend [2] - 15:2, 48:23 intended [2] - 22:25, 158:5 intends [1] - 78:14 intent [2] - 5:15, 5:19 intentioned [1] -188:18 interaction [2] - 68:3, 75:21 interactions [1] -52.12 interest [2] - 38:13, 42:7 interested [1] - 52:3 internal [2] - 32:23, 47:19 Internal [3] - 86:23, 87:3, 93:4 International [1] -103:5 interrelated [2] - 30:6, 102:20

interrupt [2] - 17:18,

109:12

interview [3] - 172:13, 175:10, 175:13 interviewed [1] -123:18 interviewing [1] -124:5 interviews [10] -96:24, 121:7, 126:4, 130:21, 131:19, 131:20, 192:24, 193:2, 193:24, 194:10 intravenous [1] -103:9 invented [1] - 101:8 investigate [1] - 149:6 investigation [1] -104:2 investigator[1] - 81:2 invited [1] - 34:21 involved [5] - 63:5, 81:13, 103:23, 145:21, 200:15 involvement[1] -130:19 involving [1] - 52:11 Islip [1] - 1:8 isolate [1] - 122:22 issue [12] - 6:7, 7:10, 9:6. 73:17. 75:14. 77:8. 93:22. 94:4. 129:10. 135:21. 136:3, 136:9 issued [3] - 84:2, 185:15, 185:18 issues [7] - 27:6, 48:18, 52:4, 94:18, 95:20, 158:22, 165:11 issuing [1] - 187:6 itself [3] - 20:16, 41:19, 158:7 IV [1] - 89:24

J

JAMA[3] - 86:17,

139:11, 140:5

JAMES [1] - 2:2

James [1] - 5:4

Janssen [8] - 2:8, 4:5, 7:8, 63:8, 110:7, 132:14, 132:24, 133:3

January [9] - 115:4, 115:18, 118:18, 119:10, 121:12, 130:25, 154:12, 185:11, 185:14

JAYNE [1] - 1:17

Jayne [1] - 3:14 iciaccio@napolilaw. com [1] - 1:25 iconroy@ simmonsfirm.com [1] - 1:19 Jerry [2] - 3:4, 29:20 **JERRY** [1] - 1:12 Jick [2] - 44:14, 44:22 job [1] - 162:5 Johnson [10] - 7:8, 42:17, 70:9, 76:16, 110:7 Joint [2] - 160:9, 161:14 joint [2] - 106:19, 106:21 Jonathan [1] - 139:11 journal [9] - 25:18, 25:19, 25:22, 69:2, 69:20, 86:20, 92:21, 156:21, 156:25 Journal [10] - 45:2, 68:15, 68:24, 86:18, 86:25, 92:19, 93:3, 93:4, 103:6, 157:24 journals [6] - 25:19, 42:6, 68:25, 93:6, 93:9, 93:13 JR [1] - 1:16 Judge [15] - 14:17, 17:24, 54:4, 54:6, 71:6, 71:23, 75:6, 75:17, 76:18, 79:5, 90:24, 91:7, 113:2, 135:3, 196:16 judgment [8] - 6:12, 6:18, 165:13, 165:25, 166:4, 166:6, 169:20, 188:19 July [1] - 73:6 jump [2] - 152:2, 152:4 jury [2] - 132:15, 132:25 Justice [21] - 1:12, 21:2, 30:17, 35:22, 58:3, 59:22, 59:23, 68:7, 68:12, 84:25, 88:6, 89:6, 94:15, 96:17, 97:19, 99:16, 100:4, 100:12, 105:2, 190:21, 201:22

215

K

Kadian [2] - 127:16, 134:25

Kadian's [1] - 135:7 Katherine [1] - 7:15 keep [1] - 147:23 Keller [3] - 4:21, 5:10, 6:12 kept [1] - 22:13 key [6] - 30:25, 96:4, 103:17, 160:7, 160:20, 200:17 Keyes [2] - 5:2, 7:15 kicked [1] - 112:10 kind [5] - 56:9, 64:6, 76:6. 189:4. 196:2 kinds [2] - 32:11, 194:22 knowing [2] - 137:22, 138:3 knowledge [5] -136:13, 166:4, 166:5, 183:23, 191:2 known [5] - 31:15, 31:19, 44:12, 64:8, 86:20 knows [2] - 8:24, 21:2

L

labeled [1] - 199:22 laboratories [1] -195:16 Lacey [1] - 5:10 lack [2] - 73:21, 160:16 laid [1] - 73:20 language [1] - 79:13 Lankenau [1] - 103:5 large [5] - 39:18, 47:6, 82:18, 98:11, 173:10 largely [3] - 114:19, 114:24, 116:7 last [13] - 22:11, 31:17, 64:25, 73:2, 73:8, 82:9, 104:22, 162:3, 162:15, 182:22, 182:23, 188:13, 199:11 late [6] - 7:14, 7:18, 27:6, 61:5, 101:25, 199:2 latest [1] - 24:8 launched [1] - 99:11 law [1] - 175:13 lawful [1] - 28:5 lawfully [1] - 149:18 lawmakers [2] - 36:11, 36:17 lawyer [1] - 79:12 lawyers [8] - 26:15, 32:17, 32:22, 47:19, 53:15, 73:23,

100:22, 114:7, 123:8, 201:4, 202:10 leaders [3] - 160:7, 160:20, 200:18 leading [8] - 45:21, 45:22, 70:20, 90:20, 196:8, 196:10, 198:11, 198:14 leads [1] - 141:15 learn [2] - 120:20, 121:3 least [5] - 55:25, 75:8, 138:19, 167:4, 197:13 lectures [1] - 34:7 led [4] - 95:2, 137:17, 183:19, 200:19 left [4] - 58:5, 85:3, 85:24, 94:11 legal [4] - 16:17, 153:4, 153:11, 153:22 legendary [1] - 44:12 legitimate [4] - 104:5, 170:18. 173:12. 173:21 **LEMBKE** [3] - 12:7, 12:11, 12:14 Lembke [51] - 1:10, 5:2, 7:19, 12:2, 12:19, 12:22, 14:7, 18:19, 46:6, 72:9, 75:19, 76:21, 107:10, 110:4, 112:16, 113:22, 114:8, 115:4, 115:14, 115:16, 116:10, 119:9, 121:15, 122:14, 126:7, 126:13, 126:16, 128:14, 129:9, 129:14, 135:22, 136:12, 139:24, 151:15, 151:21, 152:12, 153:15, 154:8, 154:20, 158:16, 159:6, 162:21, 163:19, 171:10, 173:9, 174:23, 176:9, 182:19, 187:4, 190:12,

157:18, 192:17

lay-newspaper [1] -

lay-newspapers [2] -

lead [7] - 45:25, 91:5,

118:7, 118:13

138:19

138:19

lay [3] - 118:7, 118:13,

203:14 Lembke's [7] - 9:4, 65:25, 75:9, 77:16, 107:15, 199:23, 201:6 lenient [2] - 45:22, 196:8 less [3] - 134:10, 134:12, 167:4 lethal [1] - 51:5 **LETITIA**[1] - 2:2 letter [14] - 4:20, 6:2, 7:13, 35:13, 44:14, 44:24, 45:2, 45:10, 45:14, 46:9, 46:13, 46:22, 97:12, 162:25 level [4] - 114:18, 122:12, 166:20, 166:21 liability [1] - 192:18 Liberty [1] - 2:4 license [1] - 149:15 licensed [1] - 19:24 licenses [1] - 149:13 licensing [1] - 188:25 lie [1] - 141:11 life [2] - 13:11, 52:12 **lightly** [1] - 108:3 likelihood [1] - 86:13 likely [2] - 28:16, 28:17 likewise [4] - 175:24, 176:14, 184:19, 187:14 **limit** [1] - 13:3 limited [6] - 6:5, 90:14, 90:20, 91:5, 91:24, 92:2 limiting [2] - 91:12, 92:4 line [25] - 11:7, 44:25, 57:5, 58:12, 58:17, 58:20, 85:4, 85:9, 118:25, 121:13, 121:14, 122:4, 131:3, 131:5, 154:13, 155:10, 159:7, 167:21, 182:12, 182:14, 182:15, 182:23, 187:21 lines [7] - 58:5, 115:11, 118:20, 131:2, 153:20, 185:3 lips [1] - 12:5 list [15] - 7:18, 7:23, 9:9, 11:12, 15:14, 15:19, 15:20, 42:2, 43:7, 51:8, 70:14, 106:21, 201:3,

108:13, 185:22, 186:2 listening [1] - 17:22 litany [1] - 192:9 literature [34] - 25:6, 25:11, 28:19, 28:20, 29:2, 29:12, 29:14, 37:7, 37:17, 41:19, 43:12, 45:11, 46:15, 48:2, 48:4, 48:14, 49:3, 54:11, 56:22, 56:24, 67:24, 80:3, 80:8, 80:11, 80:14, 80:24, 81:6, 81:10, 82:16, 88:8, 93:16, 97:6, 101:12, 103:22 litigation [22] - 8:20, 10:22, 10:23, 11:2, 14:19, 26:16, 33:14, 33:16, 37:12, 37:18, 39:6, 43:19, 44:13, 107:13, 110:8, 111:25, 130:19, 136:9, 179:16, 193:10, 200:15 LITIGATION[1] - 1:4 **Litigation** [1] - 3:9 litigations [2] - 32:18, 32:23 live [5] - 13:7, 17:23, 18:5, 35:8, 64:17 LLC [1] - 1:14 **LLP** [1] - 2:8 located [1] - 131:24 location [1] - 187:12 locations [1] - 18:5 LOIS [1] - 2:5 Lois [1] - 3:20 long-acting [1] -127:19 long-term [3] - 69:15, 89:17, 126:25 look [23] - 35:17, 38:5, 38:12, 44:7, 62:18, 67:14, 68:6, 69:7, 87:21, 90:13, 90:18, 93:22, 94:20, 96:10, 98:25, 99:21, 102:14, 113:21, 118:17, 141:22, 146:16, 176:18 looked [19] - 9:19, 35:13, 37:14, 43:22, 47:18, 69:17, 86:3, 86:8, 89:22, 92:8, 97:21, 98:13, 98:17, 102:22, 126:19, 142:2, 182:10,

201:6, 202:7

listed [4] - 17:3,

looking [9] - 38:4, 41:20, 43:21, 69:15, 80:11, 95:19, 142:10, 145:22, 197:16 looks [1] - 86:17 Los [1] - 103:10 lost [2] - 70:6, 128:5 low [7] - 40:14, 40:17, 40:25, 46:20, 84:19, 85:4, 93:6 lower [3] - 85:9, 134:21, 168:6 lowly [1] - 104:15 lunch [1] - 4:16 luncheon [3] - 105:18, 105:21, 105:24

198:17, 202:25

216

M

M.D [3] - 26:8, 60:16, 157:5 Madison [1] - 1:15 maintain [1] - 21:25 maintained [1] -141:23 major [4] - 95:20, 101:23, 117:15, 198:25 majority [4] - 27:25, 136:3, 136:6, 173:10 Mallinckrodt [3] -122:7, 122:9, 133:10 managed [2] - 150:19, 150:24 management [6] -63:17, 127:6, 127:9, 127:20, 152:18, 198:18 Management [1] -101:21 mandated [1] - 191:24 mandates [1] - 191:13 manifesting [1] -66:22 manipulated [4] -160:20, 160:24, 161:8, 161:13 manipulating [1] -141:4 manipulation [1] -160:6 manipulative [1] -140:24 Manual [2] - 24:8, 53:21 manufacture [3] -62:6, 64:12, 83:5 manufactured [3] -

127:23, 145:6,	160:
145:22	184
manufacturers [5] -	Matt
45:15, 48:3, 79:24,	171:
96:2, 201:7	matte
manufactures [1] -	74:7
200:22	McKe
manufacturing [1] -	164
146:11	MDL
manuscript [2] -	71:1
25:18, 202:23	106
map [1] - 14:21	112
marijuana [1] - 27:18	112
mark [1] - 199:16	113:
market [4] - 135:19,	mean
145:22, 148:20,	23:1
182:6	75:4
marketed [2] - 181:17,	120:
184:5	134
marketing [49] -	146:
62:19, 62:24, 63:7,	176:
74:22, 75:14, 75:16,	mean
75:22, 76:2, 76:5,	68:2
76:7, 76:22, 77:3,	mean
77:11, 77:20, 79:23,	22:2
80:6, 81:11, 81:18,	102
87:17, 110:13,	102
110:17, 110:21,	124:
110:25, 111:15,	142:
113:4, 113:5,	156
113:10, 119:14,	mean
119:18, 119:23,	60:2
120:20, 121:3,	
	170:
121:19, 122:8,	200:
121:19, 122:8, 128:23, 158:22,	200: 201:
121:19, 122:8, 128:23, 158:22, 168:3, 168:6,	200: 201: meas
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22,	200: 201: meas 142:
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24,	200: 201: meas 142: Medi
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15,	200: 201: meas 142: Medi 28:1
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11,	200: 201: meas 142: Medi 28:1 139:
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6	200: 201: meas 142: Medio 28:1 139: Medio
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6	200: 201: meas 142: Medi 28:1 139: Medi 86:1
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask[1] - 109:6 material [15] - 33:3,	200: 201: meas 142: Medi 28:1 139: Medi 86:1 93:3
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20,	200: 201: meas 142: Medi 28:1 139: Medi 86:1 93:3
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7,	200: 201: meas 142: Media 28:1 139: Media 86:1 93:3 149:
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10,	200: 201: meas 142: Medii 28:1 139: Medii 86:1 93:3 149: 160: medii
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10, 135:23, 135:24,	200: 201: meas 142: Medid 28:1 139: Medid 86:1 93:3 149: 160: medid 21:1
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10, 135:23, 135:24, 136:16, 136:18,	200: 201: meas 142: Medid 28:1 139: Medid 86:1 93:3 149: 160: medid 21:1 29:2
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10, 135:23, 135:24, 136:16, 136:18, 145:13, 188:6	200: 201: meas 142: Medid 28:1 139: Medid 86:1 93:3 149: 160: medid 21:1 29:2 29:1
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10, 135:23, 135:24, 136:16, 136:18, 145:13, 188:6 materials [31] - 7:15,	200: 201: meas 142: Medid 28:1 139: Medid 86:1 93:3 149: 160: medid 21:1 29:2 29:1 33:1
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10, 135:23, 135:24, 136:16, 136:18, 145:13, 188:6 materials [31] - 7:15, 7:19, 7:23, 8:3, 8:4,	200: 201: meas 142: Medid 28:1 139: Medid 86:1 93:3 149: 160: medid 21:1 29:2 29:1
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10, 135:23, 135:24, 136:16, 136:18, 145:13, 188:6 materials [31] - 7:15, 7:19, 7:23, 8:3, 8:4, 8:5, 8:11, 8:12, 8:18,	200: 201: meas 142: Medid 28:1 139: Medid 86:1 93:3 149: 160: medid 21:1 29:2 29:1 33:1 41:1
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10, 135:23, 135:24, 136:16, 136:18, 145:13, 188:6 materials [31] - 7:15, 7:19, 7:23, 8:3, 8:4, 8:5, 8:11, 8:12, 8:18, 9:3, 11:12, 32:10,	200: 201: meas 142: Medid 28:1 139: Medid 86:1 93:3 149: 21:1 29:2 29:1 33:1 41:1 47:2
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10, 135:23, 135:24, 136:16, 136:18, 145:13, 188:6 materials [31] - 7:15, 7:19, 7:23, 8:3, 8:4, 8:5, 8:11, 8:12, 8:18, 9:3, 11:12, 32:10, 35:12, 47:18, 70:23,	200: 201: meas 142: Medid 28:1 139: Medid 86:1 93:3 149: 21:1 29:2 29:1 33:1 41:1 47:2 49:3
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10, 135:23, 135:24, 136:16, 136:18, 145:13, 188:6 materials [31] - 7:15, 7:19, 7:23, 8:3, 8:4, 8:5, 8:11, 8:12, 8:18, 9:3, 11:12, 32:10,	200: 201: meas 142: Medid 28:1 139: Medid 86:1 93:3 149: 21:1 29:2 29:1 33:1 41:1 47:2 49:3 49:2
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10, 135:23, 135:24, 136:16, 136:18, 145:13, 188:6 materials [31] - 7:15, 7:19, 7:23, 8:3, 8:4, 8:5, 8:11, 8:12, 8:18, 9:3, 11:12, 32:10, 35:12, 47:18, 70:23, 71:16, 77:20, 81:11, 81:18, 119:14, 119:18, 119:23,	200: 201: meas 142: Medid 28:1 139: Medid 86:1 93:3 149: 29:2 29:1 33:1 41:1 47:2 49:3 49:2 52:1
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10, 135:23, 135:24, 136:16, 136:18, 145:13, 188:6 materials [31] - 7:15, 7:19, 7:23, 8:3, 8:4, 8:5, 8:11, 8:12, 8:18, 9:3, 11:12, 32:10, 35:12, 47:18, 70:23, 71:16, 77:20, 81:11, 81:18, 119:14,	200: 201: meas 142: Medid 28:1 139: Medid 86:1 93:3 149: 29:2 29:1 33:1 41:1 47:2 49:3 49:2 52:1 56:1
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10, 135:23, 135:24, 136:16, 136:18, 145:13, 188:6 materials [31] - 7:15, 7:19, 7:23, 8:3, 8:4, 8:5, 8:11, 8:12, 8:18, 9:3, 11:12, 32:10, 35:12, 47:18, 70:23, 71:16, 77:20, 81:11, 81:18, 119:14, 119:18, 119:23, 120:21, 121:4, 121:19, 122:8,	200: 201: meas 142: Medid 28:11 139: Medid 86:1 149: 29:21 133:1 47:22 49:33 49:25 52:1 68:1
121:19, 122:8, 128:23, 158:22, 168:3, 168:6, 181:14, 181:22, 182:2, 182:24, 184:2, 184:15, 186:4, 186:11, 186:15, 187:6 mask [1] - 109:6 material [15] - 33:3, 46:17, 48:10, 62:20, 63:7, 70:14, 87:7, 87:17, 113:10, 135:23, 135:24, 136:16, 136:18, 145:13, 188:6 materials [31] - 7:15, 7:19, 7:23, 8:3, 8:4, 8:5, 8:11, 8:12, 8:18, 9:3, 11:12, 32:10, 35:12, 47:18, 70:23, 71:16, 77:20, 81:11, 81:18, 119:14, 119:18, 119:23, 120:21, 121:4,	200: 201: meas 142: Medid 28:11 139: Medid 86:1 149: 29:21 133:1 47:2 49:3 49:2 52:1 68:1 80:1

```
):6, 184:10,
:24
[3] - 154:11,
1:13, 172:8
er [3] - 65:18,
7, 169:11
esson [2] - 164:4,
[12] - 71:5, 71:11,
17, 74:21,
3:20, 107:4,
2:4, 112:17,
2:18, 112:22,
3:3, 153:16
n [15] - 17:17,
12, 37:13, 71:25,
4, 117:12,
):11, 134:3,
1:7, 134:8, 137:4,
5:16, 162:4,
5:5, 190:24
ning [3] - 61:6,
2, 74:25
ns [16] - 21:3,
24, 66:21, 79:12,
2:5, 102:11,
2:13. 119:12.
:23, 134:24,
2:6, 147:18,
5:5, 164:24, 168:4
nt [8] - 22:21,
20, 62:10,
0:15, 170:16,
0:15, 200:24,
1:23
sure [2] - 139:4,
2:13
icaid [5] - 28:10,
13, 28:15, 28:17,
9:12
ical [11] - 17:9,
18, 87:2, 92:20,
3, 146:25, 147:2,
):21, 150:8,
):9, 161:14
ical [71] - 19:11,
15, 25:6, 28:19,
2, 29:4, 29:11,
14, 30:23, 31:11,
10, 37:7, 37:17,
19, 45:11, 46:15,
25, 48:3, 48:14,
3, 49:10, 49:21,
22, 50:10, 52:5,
11, 54:11, 56:17,
18, 67:24, 68:14,
18, 68:25, 80:3,
14, 82:21, 83:2,
8, 91:5, 93:15,
0:20, 101:3,
```

```
101:6, 101:12,
 104:5, 124:7,
 125:22, 125:25,
 149:10, 149:13,
 153:14, 155:16,
 155:21, 155:25,
 156:5, 156:10,
 160:7, 160:8,
 160:24, 161:8,
 165:13, 169:19,
 173:12, 173:21,
 178:8, 187:16,
 188:19, 193:20,
 198:7, 200:19
medically [7] - 114:3,
 129:25, 130:16,
 131:10, 132:15,
 132:25, 166:19
Medicare [9] - 35:14,
 35:18, 35:23, 35:25,
 97:13, 139:16,
 139:20, 140:3, 140:6
medication [22] -
 22:24, 90:16,
 116:14, 120:10,
 120:17, 128:3,
 128:18, 129:24,
 130:14, 151:2,
 164:19, 164:25,
 165:2, 165:9,
 165:10, 166:17,
 169:18, 171:6,
 172:10, 173:4,
 173:7, 178:24
medications [34] -
 24:16, 30:4, 30:11,
 31:2, 31:5, 63:13,
 82:23, 87:24,
 114:17, 119:7,
 123:16, 124:4,
 125:3, 125:11,
 125:15, 127:5,
 127:22, 129:5,
 129:19, 132:14,
 132:24, 134:5,
 136:13, 137:13,
 137:23, 138:4,
 140:25, 142:20,
 148:11, 149:17,
 167:9, 167:14,
 173:20, 189:14
Medicine [25] - 14:13,
 17:9, 17:10, 17:11,
 17:13, 18:20, 19:4,
 20:24, 24:23, 45:3,
 51:22, 52:9, 52:25,
 53:8, 63:2, 86:23,
 87:3, 92:24, 93:4,
 95:13, 149:5,
 149:12, 149:22,
```

```
150:4, 157:24
medicine [25] - 19:24,
 22:22, 22:23, 23:12,
 24:25, 33:11, 49:16,
 49:20, 50:4, 51:15,
 53:4, 54:17, 57:13,
 59:2, 87:6, 90:4,
 93:16. 95:21. 96:25.
 98:5, 102:16, 169:9,
 170:14, 173:15,
 197:19
medium [2] - 82:6,
 93:7
meet [1] - 73:12
meetings [2] - 35:6,
 36:13
Melville [1] - 1:22
member [2] - 51:25,
 70:20
members [1] - 42:3
mental [1] - 178:8
Mental [2] - 24:8,
 53:21
mention [1] - 187:11
mentioned [5] - 11:18,
 72:4, 72:5, 100:12,
 124:14
mentioning [1] - 40:25
messages [4] - 32:24,
 33:6, 75:22, 160:10
met [3] - 14:15, 26:19,
 174:23
method [1] - 43:13
methodologies [1] -
 15:6
methodology [65] -
 14:23, 28:25, 31:9,
 33:9, 33:13, 36:20,
 36:25, 38:6, 43:17,
 44:5, 46:7, 46:8,
 48:7, 48:22, 50:2,
 50:7, 59:5, 60:9,
 64:21, 65:11, 67:2,
 67:7, 67:12, 67:19,
 67:23, 73:12, 73:14,
 74:8, 74:11, 74:13,
 75:20, 79:20, 80:21,
 83:9, 87:12, 88:2,
 88:5, 120:23,
 122:17, 124:24,
 125:8, 126:5,
 126:12, 126:15,
 139:6, 142:12,
 144:21, 145:21,
 148:23, 149:25,
 150:13, 150:18,
 163:17, 166:10,
 166:22, 175:8,
 176:10, 176:20,
 176:21, 177:2,
```

```
21
 177:5, 177:13,
 178:20, 180:5,
 189:22
methods [4] - 96:15,
 111:12, 123:18,
 177:9
MEYERS [1] - 2:8
microphone [1] -
 54:14
mid [1] - 145:12
middle [1] - 58:17
might [4] - 38:17,
 49:8, 161:19, 202:2
mill [9] - 119:3, 138:5,
 138:21, 139:17,
 139:25, 140:9,
 140:13, 140:18,
 147:19
milligram [2] - 60:2,
 84:19
million [2] - 191:20,
 194:9
millions [2] - 107:12
mills [5] - 118:8,
 118:14, 138:16,
 138:25, 139:5
mind [2] - 123:12,
 158:13
minor [1] - 155:10
minutes [3] - 163:6,
 174:7, 190:18
MINUTES [1] - 1:10
misconceptions [1] -
 82:5
misheard [1] - 190:17
misinformation [2] -
 34:9, 34:18
misleading [10] -
 16:21, 40:8, 96:2,
 113:25, 158:25,
 159:10, 160:10,
 184:21, 185:5, 186:4
misled [2] - 16:4,
 60:11
misrepresentations
 [1] - 33:20
Miss [8] - 106:24,
 109:9, 192:3,
 192:22. 194:13.
 199:13, 199:22,
 200:13
missing [7] - 49:8,
 61:16, 200:7,
 200:10, 200:11,
 200:16, 200:17
misunderstood [1] -
 190:17
misuse [16] - 22:22,
 22:24, 24:13, 29:18,
 89:20, 96:5, 100:20,
```

103:13, 103:16, 103:17, 103:24, 114:7, 123:8, 139:5, 140:18, 168:23 MME [1] - 84:20 model [1] - 150:6 molecule [1] - 23:17 molecules [1] - 50:19 moment [5] - 118:22, 123:3, 133:25, 151:14, 182:11 momentum [1] - 55:17 monitor [1] - 153:9 monitored [1] - 39:24 monitoring [6] -141:23, 142:3, 142:11, 152:24, 154:6, 154:15 mood [1] - 19:20 morning [24] - 3:6, 3:7, 3:16, 3:18, 3:19, 3:22, 3:23, 3:25, 4:3, 4:4, 4:8, 7:21, 12:3, 12:23, 13:2, 14:7, 14:8, 14:9, 156:15, 156:17, 158:23, 171:11, 171:19, 171:23 morphine [3] - 60:2, 84:19, 136:6 most [9] - 38:24, 98:2, 98:6, 104:4, 134:18, 135:20, 136:10, 156:5, 165:23 mostly [2] - 81:6, 135:15 motion [1] - 6:18 motivated [1] - 82:2 mouse [1] - 185:23 move [2] - 38:5, 175:4 movement [1] - 55:17 movie [1] - 161:21 moving [3] - 12:5, 90:25, 147:23 MR [107] - 3:12, 3:17, 3:25, 4:4, 4:6, 4:23, 8:17, 10:18, 11:25, 14:4, 14:6, 17:20, 18:17, 18:18, 41:10, 42:23, 42:25, 43:3, 44:16. 44:18. 46:4. 46:5, 47:13, 47:15, 51:17, 51:19, 53:11, 53:13, 57:19, 57:21, 59:15, 59:17, 60:5, 60:7, 61:2, 61:18, 61:25, 62:3, 62:18, 62:22, 65:13, 65:17, 65:21, 65:23, 66:4, 66:6, 70:5, 70:19,

71:18, 75:7, 75:12, 79:5, 79:16, 84:7, 84:9, 88:20, 88:22, 90:23, 91:3, 94:6, 94:8, 99:14, 101:14, 101:16, 102:25, 103:3, 104:22, 104:24, 105:13, 106:2, 106:11, 108:4, 108:21, 109:5, 109:14, 109:24, 151:23, 152:8, 152:11, 154:11, 162:21, 163:3, 163:8, 163:12, 165:6, 172:7, 174:2, 174:5, 174:20. 176:8. 181:18. 181:24. 182:14, 186:17, 186:20, 186:25, 187:2, 187:3, 190:3, 190:7, 190:9, 190:10, 196:13, 196:16, 198:10, 201:10, 203:12 MS [40] - 3:14, 3:20, 3:23, 5:6, 5:25, 6:9, 7:2, 7:3, 7:7, 7:12, 9:7, 10:8, 11:23, 45:18, 45:21, 70:8, 71:9, 76:13, 76:15, 77:25, 78:8, 78:12, 79:9, 79:15, 105:20, 105:23, 107:6, 107:24, 109:10, 109:15, 109:17, 110:3, 112:9, 112:13, 112:15, 113:14, 115:13, 151:19, 196:6, 196:10 multidistrict [1] -111:24 multimodal [1] -193:24 multiple [1] - 141:5 must [5] - 42:6, 128:3, 128:19. 128:23. 190:24 muted [2] - 12:4, 12:7 Myth [3] - 67:3, 67:5, 67:18 myth [9] - 63:12, 64:11, 64:13, 64:25, 66:12, 66:13, 66:15, 66:16, 67:11 myths [2] - 62:15,

65:25

Ν

name [6] - 12:17, 13:7, 110:6, 174:24, 187:12, 197:8 named [6] - 68:15, 89:2, 89:3, 103:5, 159:3, 159:12 Napoli [1] - 108:5 NAPOLI [1] - 1:20 narcotic [1] - 45:6 narrative [1] - 62:6 narrower [1] - 134:11 NASEM [5] - 95:14, 101:20, 198:18, 198:24, 202:25 Nassau [25] - 1:21, 3:17, 99:23, 100:11, 111:20, 117:21, 122:9, 124:11, 124:22, 137:18, 167:12, 167:15, 172:18, 175:11, 175:20, 175:25, 177:20, 178:22, 180:7, 180:12, 184:16, 187:17, 187:23, 188:2, 189:12 Nate [1] - 4:4 **NATE**[1] - 2:10 nation [1] - 99:18 national [3] - 70:21, 100:6, 100:9 National [2] - 95:12, 101:19 nations [2] - 99:2, 99:6 natural [1] - 202:9 nature [3] - 34:4, 45:20, 102:4 nearly [1] - 21:18 necessarily [4] -38:21, 38:22, 144:11, 170:21 necessary [2] - 113:6, 191:14 necessity [1] - 196:2 need [15] - 29:2, 55:2, 65:8, 74:17, 79:2, 83:11, 91:19, 98:23, 130:9, 135:12, 137:23, 138:3, 139:23, 144:12, 170:19 needs [5] - 61:11, 65:20, 99:7, 164:18,

164:22

network [1] - 7:5

neurology [1] - 20:21

never [5] - 156:19, 178:12, 178:17, 181:17, 183:13 new [5] - 148:19, 196:18. 196:21. 196:22, 197:20 **NEW** [1] - 1:2 New [116] - 1:8, 1:16, 1:22, 2:3, 2:3, 2:4, 2:9, 3:2, 3:20, 9:13, 26:24, 28:10, 28:13, 28:15, 34:14, 45:2, 55:5, 59:13, 59:19, 60:3, 72:3, 73:4, 99:22, 100:8, 100:9, 102:23, 103:9, 104:18, 104:20, 105:7, 105:11, 108:5, 108:9, 108:17, 111:20, 115:19, 117:18, 117:19, 118:5, 118:11, 119:3, 119:7, 119:13, 120:8, 120:15, 120:20, 120:21, 121:4, 121:10, 121:18, 121:20, 122:6, 123:15, 123:19, 123:21, 123:23, 124:3, 124:25, 125:9, 125:13, 126:20, 129:24, 130:15, 130:21, 131:9, 134:6, 137:18, 138:21, 138:25, 141:18, 142:2, 142:14, 143:9, 144:20, 145:11, 145:23, 146:2, 146:5, 146:15, 146:19, 148:7, 149:5, 149:12, 149:22, 150:3, 150:8, 150:21, 154:9, 156:10, 157:24, 159:7, 159:19, 159:22, 159:23, 166:25, 167:9. 167:18. 171:18. 172:14. 172:23, 173:11, 177:20, 179:15, 182:9, 183:22, 184:11, 185:16, 187:10, 188:25, 189:5, 193:10, 204:8 newborns [1] - 16:13 newspaper [2] -

218 119:2, 138:19 newspapers [2] -118:7, 118:13 next [5] - 69:7, 140:22, 151:24, 171:9, 183:3 night [3] - 9:10, 11:13, 107:18 nine [12] - 14:25, 15:15, 37:6, 51:8, 75:4, 75:5, 177:3, 185:21, 186:2, 186:10, 190:19, 191:5 NO.:400000/2017 [1] -1:6 noise [1] - 128:10 non [7] - 28:17, 39:25, 40:13, 40:22, 127:2, 147:14, 155:17 non-cancer [5] -39:25, 40:13, 40:22, 127:2, 155:17 non-Defendant [1] -147:14 non-Medicaid [1] -28:17 nonchronic [1] -102:18 nondrug [1] - 24:18 none [3] - 82:24, 186:3, 188:9 nonetheless [1] - 47:8 nonissue [1] - 108:24 nonlethal [1] - 85:12 nonopioid [1] - 24:16 normally [2] - 64:14, 64:17 notable [1] - 42:8 note [7] - 10:2, 46:14, 46:19, 65:19, 76:17, 78:9, 78:12 noted [7] - 10:6, 11:16, 43:4, 45:5, 73:16, 77:14, 157:7 notes [3] - 77:15, 147:22, 204:10 nothing [4] - 140:16, 190:21, 191:4, 192:17 notice [1] - 183:15 noticed [1] - 60:15 notified [1] - 183:18 notion [2] - 8:20, 66:17 novel [3] - 80:15, 80:25, 81:3 novice [1] - 185:24 Nucynta [6] - 127:9, 136:25, 164:6, 164:10, 165:9,

219

201:7, 201:8, 202:2,

202:4, 202:11,

202:15, 203:2,

opioid-related [7] -

79:24, 96:21,

104:20, 105:5

opioids [148] - 16:3,

16:5, 16:9, 16:12,

16:14, 16:16, 16:17,

58:8, 62:15, 66:9,

203:10

83:11, 85:11, 87:23,

90:14, 90:21, 91:6,

91:17, 92:5, 92:10,

92:13, 94:20, 95:3,

95:22, 95:25, 96:20,

97:4, 98:16, 100:22,

96:21, 97:2, 97:3,

101:24, 102:5,

102:14, 103:13,

103:17, 103:23,

104:20, 105:5,

165:17 196:6, 198:10, 122:22, 123:5, 15:15, 15:20, 17:2, 113:10, 114:7, 123:15, 123:22, 36:21, 37:6, 43:18, 114:18, 114:23, number [42] - 13:21, 198:13 43:19, 48:15, 48:22, 16:15, 39:18, 42:16, objects [1] - 72:21 124:4, 124:14, 115:25, 116:2, 58:9, 88:16, 105:5, obligation [1] - 166:7 124:21, 125:13, 50:7, 50:9, 51:8, 116:18, 116:23, 105:10, 106:20, obscure [1] - 19:9 133:24, 141:3, 63:21, 75:9, 76:11, 119:7, 120:9, 141:21, 144:5, 115:21, 127:18, observation[1] -77:2, 77:16, 77:18, 120:16, 121:8, 133:13, 133:17, 144:24, 148:2, 83:15, 89:8, 96:15, 123:8, 123:16, 156:20 133:18, 134:2, 151:9, 154:13, 107:11, 107:15, 123:19, 124:4, observational[1] -134:3, 134:4, 134:8, 155:9, 156:5, 165:6, 112:23, 113:7, 125:2, 125:11, 69:14 134:9, 134:13, 178:25, 182:9, 120:6, 120:7, 125:15, 126:25, observe [1] - 18:13 134:14, 134:16, 182:15, 185:5, 120:24, 123:13, 127:5, 128:3, observed [1] - 48:25 134:20, 135:9, 186:9, 186:14, 123:20, 124:12, 128:18, 129:5, obsessive [1] - 117:15 186:21, 186:24, 124:20, 125:21, 129:19, 129:24, 137:7, 137:17, obtain [4] - 104:5, 143:12, 148:8, 187:2, 190:17, 125:23, 126:8, 130:14, 132:14, 140:25. 164:18. 191:7, 197:13, 126:12, 126:23, 132:24, 133:13, 151:4, 151:11, 164:19 151:18, 166:23, 199:16, 201:11 130:4, 130:8, 133:17, 133:18, obtained [2] - 18:12, 130:13, 142:4, 134:5, 135:5, 167:7, 167:11, one-third [1] - 35:25 142:18 ongoing [1] - 170:19 144:14. 144:24. 137:13, 138:17, 167:14, 168:2, obtaining [1] - 142:20 172:15. 177:3. 139:5, 139:12, 173:14, 175:24, operating [2] - 118:7, occasion [1] - 18:8 181:25, 182:3, 140:8, 140:18, 192:2, 192:21, 118:13 occasions [2] - 21:22, 185:19, 185:21, 140:25, 141:11, 193:15, 194:14 **opine** [1] - 113:4 192:23 186:2, 186:10, 141:18, 142:7, Number [45] - 3:9, opined [1] - 75:17 occurred [3] - 16:20, 142:14, 142:17, 188:9, 190:19, 13:11, 15:11, 15:12, opining [2] - 136:2, 57:4, 103:15 142:20, 142:24, 191:5, 191:15, 15:24, 15:25, 16:4, 145:9 occurrence [1] - 80:8 143:4, 143:9, 193:19 16:8, 16:16, 16:19, opinion [62] - 5:16, **OF** [4] - 1:2, 1:2, 1:10 144:20, 145:22. **OPIOID** [1] - 1:4 37:6, 39:10, 41:24, 5:17, 16:8, 37:5, offer [4] - 113:6, 146:5, 146:10, Opioid [2] - 3:9, 44:16, 51:18, 54:24, 45:24, 51:7, 51:11, 181:25, 188:6, 101:21 146:15, 146:19, 54:25, 57:9, 57:20, 72:6, 73:18, 76:20, 189:16 59:5, 59:15, 59:18, 79:20, 80:17, 83:9, opioid [204] - 14:18, 148:6, 148:10, offered [2] - 167:2, 148:16, 149:16, 60:10, 62:20, 62:21, 83:16, 83:19, 83:22, 15:25, 16:4, 16:18, 182:2 149:23, 150:6, 62:23, 63:12, 66:4, 16:19, 16:20, 20:13, 83:25, 86:4, 87:13, offering [12] - 73:21, 150:8, 150:21, 67:3, 67:5, 67:19, 20:15, 20:16, 23:14, 104:9, 129:9, 74:9, 143:20, 68:6, 69:7, 69:8, 23:18, 24:4, 24:6, 151:6, 151:13, 130:20, 131:7, 143:25, 144:7, 69:9, 70:7, 84:8, 24:12, 26:16, 27:2, 154:24, 160:4, 131:10, 131:12, 144:10, 144:14, 84:14, 85:23, 90:24, 132:8, 132:9, 27:23, 28:9, 28:16, 160:5, 160:19, 166:23, 167:13, 94:6, 102:25, 133:12, 133:21, 28:18, 29:18, 30:20, 160:23, 161:7, 167:17, 187:25, 104:22, 106:13, 31:5, 32:13, 32:18, 161:12, 167:14, 134:9, 135:8, 189:11 199:13 32:22, 35:14, 36:2, 168:3, 168:21, 143:14, 143:21, offers [1] - 164:15 numbers [1] - 89:23 36:12, 36:14, 36:18, 171:15, 173:10, 143:25, 144:7, Office [1] - 2:3 39:6, 39:23, 40:12, 175:17, 175:19, numerous [3] - 94:18, 144:10, 146:23, office [2] - 3:21, 18:7 116:17, 116:22 41:13, 42:13, 45:15, 176:2, 176:17, 147:6, 147:13, officers [1] - 175:14 46:17, 47:3, 47:9, 176:19, 176:22, nurses [2] - 121:18, 155:8, 160:3, 160:7, offices [3] - 14:12, 177:6, 177:9, 122:6 47:12, 50:20, 54:2, 160:13, 160:20, 31:25 177:16, 178:2, 54:20, 55:2, 55:24, 166:23, 167:2, Official [2] - 204:7, 178:13, 178:23, 58:8, 58:10, 58:22, О 167:13, 167:17, 204:21 60:11, 60:22, 61:7, 186:7, 189:14, 177:8, 177:10, OFFICIAL [1] - 2:20 O'MELVENY [1] - 2:8 191:9, 192:5, 192:6, 61:20, 62:15, 63:13, 177:14, 183:20, oath [10] - 78:7, 106:9, official [1] - 204:16 64:5, 64:6, 64:12, 193:21, 194:2, 183:21, 187:25, often [5] - 39:2, 52:17, 154:3, 154:18, 194:14, 198:18, 65:3, 66:9, 69:15, 188:6, 188:14, 85:12, 141:15, 159:14, 174:14, 198:25, 199:25, 79:23, 79:24, 82:23, 189:11, 189:16, 142:21 174:17, 183:8,

191:7, 199:25,

Opinion [12] - 15:24,

15:25, 16:4, 16:19,

54:24, 57:9, 59:5,

60:10, 69:8, 69:9,

opinions [63] - 5:22,

6:17, 6:20, 6:22,

8:11, 8:25, 15:2,

73:4, 78:18

200:17

Ohio [2] - 107:4,

older [1] - 104:4

one [51] - 7:9, 18:24,

26:25, 35:25, 70:10,

74:15, 78:9, 78:12,

78:15, 78:17, 89:2,

102:5, 102:9,

103:12, 116:25,

91:18, 92:11, 92:19,

111:25

185:11, 188:4

object [2] - 70:15,

objection [20] - 10:2,

10:12, 11:20, 11:22,

13:22, 13:23, 45:18,

45:19, 45:20, 61:4,

61:5, 61:17, 70:8,

72:21, 77:23,

181:18, 181:20,

72:13

16:21, 22:7, 23:15,
26:2, 28:14, 30:18,
30:19, 32:7, 36:13,
37:8, 37:15, 37:17,
40:21, 41:20, 42:10
43:15, 45:16, 46:24,
47:6, 47:10, 47:21,
49:3, 50:18, 50:19,
51:9, 55:5, 55:9,
55:14, 55:20, 56:3,
56:4, 56:5, 56:6,
56:12, 56:16, 57:2,
58:7, 58:15, 60:12,
60:23, 62:6, 63:15,
64:13, 64:16, 66:2,
66:14, 66:24, 67:6,
68:20, 68:22, 69:10
70:2, 77:5, 80:13,
82:17, 84:4, 84:17,
85:5, 85:6, 85:7,
85:10, 88:18, 89:11,
89:12, 89:17, 89:18
89:20, 91:10, 91:14,
91:18, 91:19, 91:22,
92:2, 92:6, 92:9,
92:12, 93:19, 94:23
95:4, 96:14, 97:22,
98:2, 98:6, 98:12,
99:12, 100:19,
100:20, 100:24,
102:15, 102:19, 104:18, 115:22,
104:18, 115:22,
117:22, 118:3,
118:6, 118:12,
127:19, 131:9,
137:17, 137:21,
138:2, 138:7,
144:25, 145:6,
148:19, 155:4,
155:10, 155:16,
155:20, 155:25,
159:2, 159:10,
160:11, 166:13, 168:15, 168:17,
168:15, 168:17,
169:20, 170:16,
171:17, 172:4,
172:19, 172:23,
172:24, 173:23, 180:25, 181:17,
182:6, 182:25,
184:13, 184:20,
185:5, 186:15,
188:20, 189:24,
194:19, 201:9,
201:15, 201:16
Opioids [2] - 59:19,
68:8
opportunities [1] -
34:22
opportunity [3] - 5:21
7:25, 74:20

opposing [1] - 73:23 opposite [1] - 109:4 option [1] - 156:7 oral [1] - 139:23 orange [1] - 58:20 order [12] - 14:23, 38:7, 43:13, 78:3, 89:11, 109:16, 152:24, 154:6, 154:15, 190:25, 191:15, 191:20 orders [2] - 153:9, 180:24 organization [5] -53:16, 63:3, 63:4, 95:9, 95:17 organizations [1] -93:17 orient [1] - 23:8 original [3] - 42:22, 204:16 originally [1] - 161:22 otherwise [4] - 94:4, 101:2, 107:5, 170:18 OUD [4] - 24:5, 54:5, 91:6, 96:5 outcome [2] - 80:22, 85.16 outcomes [9] - 40:23, 41:16, 57:15, 86:5, 93:20. 93:24. 123:14, 124:2, 140:14 outlier [2] - 53:2, 100:10 outpatients [1] - 47:6 outweigh [2] - 30:22, 128:24 overall [1] - 140:8 overdose [18] - 28:18, 51:6, 58:8, 58:17, 84:18, 85:6, 85:11, 95:6, 96:21, 97:5, 104:20, 105:5, 114:7, 123:9, 139:6, 140:19, 176:15, 195:12 overdoses [1] - 85:12 overlooked [1] - 17:18 overprescribing [5] -97:17, 98:19, 98:20, 98:25, 99:8 overseas [1] - 149:9 own [11] - 6:22, 27:23, 28:6, 81:15, 82:20, 103:14, 137:21, 165:12, 166:11, 193:21, 196:17 OxyContin [2] - 83:6,

136:6

P p.m [4] - 4:15, 7:18, 11:13, 70:13 pad [1] - 56:8 page [32] - 39:6, 62:24, 76:20, 77:14, 115:9, 115:11, 118:20, 118:22, 121:13, 122:20, 130:24, 131:2, 131:3, 133:23, 148:13, 153:20, 154:13, 154:21, 159:7, 160:2, 167:21, 168:2, 181:23, 182:12, 182:14, 182:22, 182:23, 183:3, 185:3, 193:12, 193:13, 197:16 pain [55] - 16:10, 22:7, 24:25, 25:3, 25:8, 39:25, 40:13, 40:22, 41:21, 42:11, 43:15, 47:11, 48:17, 50:21, 56:7, 56:10, 56:13, 57:2, 63:17, 64:5, 65:6, 66:14, 66:20, 66:24, 67:6, 68:23, 69:11, 69:16, 70:3, 84:21, 87:23, 89:11, 89:16, 91:12, 98:4, 102:18, 124:25, 125:10, 127:2, 127:6, 127:10, 127:20, 129:6, 148:11, 155:3, 155:11, 155:15, 155:17, 165:2, 165:10, 168:21, 168:22, 198:18 Pain [4] - 24:22, 63:2, 69:20, 101:20 painkillers [2] - 27:9, 90.14 pairs [1] - 147:5 Pam [11] - 113:17, 114:13, 115:10, 118:21, 121:14, 123:4, 123:10, 131:3, 131:4, 133:24, 151:7 pamphlet [2] - 64:10, 64:14 panel [3] - 29:20, 29:22, 42:2 panels [1] - 29:17 panoply [1] - 27:20

paper [33] - 25:19,

25:21, 38:2, 38:10, 38:17, 39:15, 41:23, 42:4, 44:22, 44:23, 46:21, 47:8, 68:14, 69:22, 69:24, 71:7, 85:23, 85:24, 85:25, 86:22, 88:16, 89:2, 91:11, 91:25, 92:23, 95:22, 97:15, 97:20, 103:5, 104:11, 104:12, 106:25, 198:21 papers [28] - 25:14, 25:25, 37:8, 37:11, 37:16, 37:20, 37:21, 37:22, 38:4, 38:7, 39:5, 43:21, 43:24, 43:25, 44:4, 44:6, 67:15, 80:16, 80:19, 85:20, 86:11, 88:14, 88:16, 88:24, 89:10, 90:18, 90:19, 92:17 paradigm [8] - 55:8, 57:3, 98:10, 155:9, 155:14, 155:19, 160:5, 200:19 paragraph [3] -154:22, 193:14, 193:18 paraphrase [1] - 15:23 paraphrasing [6] -16:22, 52:12, 94:25, 95:23, 103:13, 201:14 parcel [2] - 72:18, 107:3 pardon [2] - 143:23, 157:13 part [71] - 5:16, 5:17, 16:23, 18:6, 28:21, 39:15, 39:16, 39:22, 40:4, 43:18, 44:5, 47:23, 48:6, 50:2, 50:23, 51:2, 54:25, 59:4, 60:15, 61:10, 62:10, 63:21, 66:7, 71:8, 72:12, 72:18, 84:11, 87:12, 107:3, 120:23, 122:17, 123:23, 124:24, 125:7, 126:11, 126:24, 129:22, 130:12, 139:6, 141:18, 142:12, 143:9, 144:21, 145:21, 147:13, 149:25, 150:13, 150:17, 150:18, 155:2, 155:3, 155:8, 155:21, 155:24,

220 163:17, 166:10, 166:15, 166:22, 173:2, 175:7, 176:10, 177:8, 178:20, 179:3, 179:25, 180:5, 189:21, 193:18, 196:3, 197:8, 199:8 PART [1] - 1:2 Part [4] - 3:3, 17:24, 36:2, 78:3 partial [1] - 19:14 participant's [1] -103:14 participated [1] - 42:3 particular [26] - 21:7, 25:18, 25:21, 30:10, 32:3, 35:19, 93:25, 116:14, 119:23, 120:10, 120:17, 123:14, 124:2, 124:24, 125:9, 132:13, 132:23, 164:25, 166:16, 166:17, 167:7, 167:9, 173:14, 189:23, 195:21, 198:20 parties [1] - 130:8 parts [1] - 88:8 party [4] - 9:15, 72:21, 147:5, 204:13 pass [1] - 21:11 past [3] - 49:2, 115:23, 168:25 pathology [1] - 19:14 pathway [1] - 50:24 patient [40] - 30:21, 30:22, 45:4, 56:7, 56:10, 56:15, 83:10, 83:13, 83:17, 84:5, 90:15, 114:17, 116:14, 116:17, 116:22. 120:10. 120:17. 123:14. 123:17, 124:2, 124:3, 124:5, 124:15, 124:25, 125:9, 140:14, 141:3, 141:4, 164:17, 164:18, 164:22, 165:3, 165:11, 173:3, 173:5, 177:5, 177:20, 177:23, 177:25 patient's [1] - 178:8 patients [70] - 20:12, 20:14, 22:6, 22:10, 22:14, 23:13, 23:14,

24:10, 25:3, 27:5,
27:8, 27:22, 28:10,
28:13, 28:16, 28:17,
29:4, 36:2, 39:25,
45:7, 45:16, 46:23,
47:2, 48:17, 48:25,
55:20, 55:21, 56:25,
57:15, 64:4, 80:12,
85:12, 87:23, 89:10,
89:17, 91:9, 91:22,
93:25, 97:3, 97:4,
97:13, 100:19,
123:13, 124:11,
124:20, 124:23,
125:12, 125:22,
126:12, 126:10,
128:25, 134:3,
134:5, 140:24,
141:10, 141:21,
147:24, 155:16, 165:18, 166:2,
165:18, 166:2,
169:12, 169:15,
169:23, 173:20,
177:10, 193:25,
194:10, 202:3,
202:11
pattern [1] - 41:18
patterns [4] - 35:13,
157:20, 158:11,
158:18
Paul [1] - 3:12
PAUL [1] - 1:16
pausing [1] - 139:13
pay [2] - 164:15,
164:17
pays [1] - 30:10
Pediatrics [2] - 68:16,
68:24
peer [25] - 25:13,
25:14, 25:16, 25:22,
25:24, 35:12, 42:6,
46:21, 56:24, 69:2,
69:22, 80:16, 81:6,
86:11, 87:3, 90:19,
93:10, 94:3, 104:12,
156:21, 156:24,
191:12, 197:4,
197:13, 197:23
peer-reviewed [11] -
25:14, 25:24, 35:12,
42:6, 46:21, 56:24,
69:2, 69:22, 80:16,
90:19, 104:12
peers [3] - 21:4, 21:8,
81:23
pending [1] - 111:25
people [10] - 7:4, 51:6,
52:14, 52:15, 58:9,
64:17, 67:15, 80:24,
04 1/ 0/ 13 00 /4
92:9, 138:2

```
per [2] - 60:2, 84:20
                           Pharmaceuticals [1] -
percent [8] - 64:4,
                            2.8
 89:16, 89:19, 91:12,
                          pharmacies [20] -
 92:5, 92:11, 92:14
                            143:2. 143:5.
percentage [2] -
                            143:17. 143:21.
 87:22, 143:16
                            143:25. 144:15.
                            168:17, 169:10,
percentages [5] -
                            169:13, 170:5,
 89:25, 90:3, 100:3,
                            172:20, 172:24,
 192:10, 192:18
                            173:4, 173:6, 181:7,
perhaps [6] - 22:19,
                            184:5, 186:8, 188:5,
 73:8, 78:21, 78:24,
                            201.8
 181:21, 190:17
                          pharmacist [1] -
period [9] - 15:8,
                            189:24
 35:19, 43:8, 59:20,
                          pharmacists [9] -
 74:14, 105:10,
                            172:13, 173:23,
 107:8, 203:8, 203:10
                            180:17, 188:21,
periods [1] - 23:15
                            188:25, 189:5,
permission [2] - 18:9,
 48:23
                            189:8, 189:12,
                            189:17
permit [1] - 8:15
                           pharmacoeconomic
permitted [5] - 8:10,
                            s[1] - 111:4
 74:5, 74:6, 113:4,
                           pharmacy [31] -
 190:20
                            166:18, 169:19,
Perry [1] - 42:15
                            170:14, 171:6,
persistent [2] - 90:20,
                            172:10, 172:11,
 91:5
                            173:15. 179:9.
person [5] - 60:3,
                            179:11, 179:21,
 73:21, 73:22, 74:9,
                            179:23, 180:3,
 162:11
                            180:7, 180:25,
personal [6] - 48:21,
                            181:10, 181:16,
 68:2, 97:8, 116:25,
                            182:3, 182:6, 183:2,
 137:21, 152:13
                            183:14, 184:2,
personally [2] - 25:10,
                            184:20, 185:6,
 100:21
                            186:5, 186:10,
persons [4] - 28:20,
                            186:15, 187:5,
 29:12, 104:4, 105:6
                            187:11, 187:15,
perspective [2] -
                            187:22, 188:2
 47:10, 181:3
                           phenomenon [7] -
pertain [1] - 182:3
                            59:8, 59:11, 100:10,
pertains [1] - 180:7
                            100:14, 100:15,
phanly@
                            101:3, 188:21
 simmonsfirm.com
                           photocopies [1] -
 [1] - 1:18
                            204:12
Pharma [1] - 42:17
                          photographic [1] -
pharmaceutical [34] -
                            18:14
 16:20, 30:7, 31:15,
                          photographs [1] -
 31:20, 31:23, 33:20,
                            17:25
 33:25, 43:7, 45:15,
                          phrase [1] - 156:19
 60:22, 61:7, 61:19,
                          physical [1] - 196:17
 110:16, 110:20,
                          physicians [6] - 28:6,
 110:24, 146:4,
                            29:5, 75:21, 82:13,
 146:13, 147:11,
                            96:4, 191:15
 147:14, 148:18,
                          physicians' [2] -
 152:15, 159:2,
                            55:13, 191:17
 159:11, 160:4,
                          physiologically [1] -
 160:19, 160:23,
                            23:16
 161:7, 161:12,
                          picture [1] - 4:9
 168:16, 169:8,
                          piece [8] - 46:20, 47:5,
 186:7, 200:14,
                            62:19, 63:6, 63:12,
 200:22, 200:25
```

```
71:7, 85:19, 106:25
pieces [1] - 88:8
pill [15] - 98:8, 118:7,
 118:13. 119:3.
 138:5. 138:16.
 138:21, 138:24,
 139:5, 139:16,
 139:25, 140:9,
 140:13, 140:18,
 147:19
pills [14] - 115:21,
 142:7, 142:24,
 143:4, 143:16,
 153:9, 166:24,
 167:8, 168:21,
 168:22, 169:12,
 170:5, 173:14, 195:8
place [3] - 106:12,
 118:22, 180:16
placed [1] - 180:25
places [1] - 34:13
placing [1] - 17:18
plainly [2] - 9:13, 9:16
Plaintiff [3] - 3:11, 4:2,
 4:21
Plaintiffs [5] - 5:9,
 6:11, 11:25, 111:19,
 111:24
Plaintiffs' [5] - 7:17,
 47:19, 106:19,
 157:18, 183:17
plan [1] - 183:25
plans [3] - 24:11,
 24:15, 24:18
play [1] - 165:15
player [1] - 153:7
players [1] - 192:4
pleadings [1] - 184:9
PLLC [1] - 1:20
pnapoli@napolilaw.
 com [1] - 1:24
point [34] - 8:23,
 10:13, 11:20, 46:20,
 61:16, 65:14, 68:16,
 72:23, 74:17, 76:9,
 77:13, 86:2, 106:17,
 107:16, 107:20,
 108:17, 132:13,
 132:23, 133:2,
 136:10, 136:22,
 137:2, 166:16,
 168:13, 170:2,
 170:7, 170:10,
 171:4, 171:12,
 171:13, 171:15,
 171:19, 184:9,
 188:17
pointed [1] - 170:25
pointers [1] - 12:24
points [5] - 10:16,
```

```
57:3, 72:15, 75:4,<sup>221</sup>
 75:5
policies [5] - 147:4,
 150:20, 150:25,
 180:12, 180:20
Policy [1] - 103:6
policy [1] - 180:21
polite [1] - 13:12
Polster [7] - 14:18,
 71:6, 71:23, 75:6,
 75:17, 76:19, 113:2
pop [1] - 151:14
population [8] - 89:9,
 89:13, 89:23,
 135:13, 170:17,
 171:18, 194:11,
 202:13
populations [1] - 99:6
Porter [2] - 44:13,
 44:21
portion [4] - 22:5,
 115:7, 118:17,
 148:22
Portnoy [3] - 42:21,
 43:5
position [2] - 24:21,
 169:25
positions [1] - 72:7
positive [1] - 26:22
possible [1] - 178:2
possibly [2] - 184:17,
 188:22
potent [4] - 55:4,
 171:17, 202:12
potential [3] - 34:9,
 53:15, 128:25
potentially [2] - 57:25,
 122:23
power [1] - 149:6
powerful [1] - 50:21
powerfully [1] - 51:4
practice [15] - 19:24,
 22:2, 22:4, 28:21,
 37:3, 49:21, 64:22,
 68:3, 108:18,
 155:16, 155:21,
 155:25, 156:5,
 156:10, 173:2
practices [5] - 76:24,
 104:6, 114:19,
 117:21, 118:2
pre [2] - 33:14, 43:19
preceded [1] - 130:18
precept [1] - 81:8
precepts [1] - 74:4
precisely [2] - 42:23,
 77:6
precluded [1] - 5:21
predate [3] - 9:21,
 9:22, 57:3
```

predated [1] - 32:16 prefer [2] - 105:18, 115:15 prejudice [1] - 108:8 preparation [2] -175:7, 187:24 prepared [1] - 41:7 prepares [1] - 41:5 preparing [3] - 81:13, 179:9, 179:19 preponderance [2] -101:23, 198:24 prescribe [22] - 20:6, 20:10. 20:11. 20:12. 55:20. 98:2. 98:5. 99:9, 114:17, 116:15, 118:6, 120:9, 120:16, 138:2, 149:16, 155:16, 165:21, 169:8, 169:25, 173:3, 173:7, 173:20 prescribed [34] -22:24, 22:25, 28:14, 28:16, 36:2, 56:7, 57:2, 57:12, 60:2, 64:5, 68:22, 89:11, 89:17, 91:10, 99:10, 100:19, 100:21, 118:12, 119:6, 123:15, 123:19, 124:3, 124:16, 129:19, 134:5, 137:21, 143:6, 151:2, 155:20, 155:25, 168:15, 169:5, 172:19, 172:23 Prescribed [1] - 59:19 prescriber [2] - 121:4, 141:4 prescribers [3] -120:21, 121:20, 140:13 prescribing [63] -16:2, 35:14, 35:23, 47:9, 47:12, 55:3, 55:8, 55:14, 57:10, 75:13, 76:24, 95:25, 96:3, 97:2, 97:13, 97:22, 98:9, 98:11, 98:16, 98:21, 99:3, 99:4, 99:18, 99:22, 102:15, 114:19, 114:23, 115:25, 116:2, 121:9, 126:20, 134:10, 134:11, 137:23, 138:7, 139:12, 140:9, 150:7,

154:24, 157:19, 158:11, 158:17, 160:5, 167:5, 168:5, 169:6, 170:4, 170:13, 170:19, 171:2, 171:3, 171:5, 171:15, 172:4, 188:20, 191:17, 191:22, 193:22, 194:3, 200:21, 202:2 Prescription [1] - 68:8 prescription [77] -16:16, 22:7, 27:9, 27:12, 28:5, 28:9, 30:4, 30:11, 31:2, 31:4, 49:2, 56:8, 58:7, 58:15, 68:19, 68:20, 80:13, 85:5, 91:14, 92:2, 95:3, 101:24, 102:4, 102:11, 102:15, 103:15, 103:17, 103:23, 104:5, 115:22, 116:13, 117:22, 118:3, 127:5, 128:3, 128:18, 129:5, 129:23, 130:14, 132:6, 132:14, 132:24, 141:23, 142:3, 142:7, 142:10, 142:19, 142:23, 144:25, 148:16, 160:11, 164:19, 164:22, 164:24, 165:11, 168:3, 168:17, 168:22, 169:9, 169:17, 169:20, 170:18, 172:9, 173:6, 173:24, 178:23, 184:13, 189:19, 189:20, 198:25, 201:14, 201:15, 202:11, 202:15, 203:2, 203:10 prescriptions [39] -27:23, 57:24, 59:12, 77:5, 96:20, 105:11, 114:3, 114:6, 123:7, 131:9, 131:13, 131:14, 132:8, 132:10, 133:3, 133:13, 133:17, 133:18, 134:4, 134:14, 135:2, 135:5, 135:9, 136:25, 137:17, 138:8, 140:2,

140:17, 141:6,

141:12, 141:15, 142:17, 164:16, 166:18, 173:10, 173:16, 180:18, 181:6, 189:23 presence [1] - 23:16 present [1] - 182:16 presentations [1] -35.5 presented [4] - 14:17, 28:2, 95:24, 107:18 presenting [2] - 34:17, 58:9 presents [1] - 32:2 preserved [1] - 72:22 presiding [1] - 3:5 press [1] - 26:22 presumably [1] -165:8 pretty [3] - 90:25, 104:25, 151:9 Prevention [1] - 84:13 prevention [1] - 52:19 prima [1] - 95:24 primarily [1] - 140:9 primary [1] - 98:2 principally [1] - 14:23 **probable** [1] - 168:5 problem [10] - 11:6, 11:19, 36:18, 102:17, 102:18, 138:17, 141:18, 142:14, 143:9, 191:2 problematic [1] -119:15 problems [1] - 102:19 procedure [1] - 92:10 proceed [4] - 11:22, 14:3. 18:17. 163:7 proceeding [3] -112:4, 112:19, 113:3 proceedings [1] -18:13 process [3] - 25:17, 108:15, 130:20 processes [1] -180:16 produce [1] - 122:10 produced [7] - 71:16, 163:19, 163:25, 164:8, 179:8, 179:21, 179:23 product [2] - 20:17, 135:18 production [3] -142:24, 142:25, 143:5 products [10] - 20:7, 20:11, 135:7, 135:15, 135:17,

135:21, 136:3, 136:7, 136:9, 184:5 profession [1] - 68:19 professional [12] -31:10, 48:21, 52:5, 68:2. 82:10. 97:8. 110:19, 160:8, 161:8, 173:2, 177:11, 180:17 professionals [2] -121:9, 173:17 Professor [1] - 17:8 professor [1] - 28:22 profile [2] - 30:14, 30:17 profit [1] - 137:22 program [10] - 33:19, 33:24, 34:5, 35:15, 35:24, 81:25, 141:24, 142:3, 154:6, 154:15 Program [1] - 17:10 Programs [1] - 94:13 progress [1] - 203:7 progression [2] -100:23, 202:10 prohibited [1] - 76:8 project [1] - 82:11 prolific [1] - 154:25 prominent [1] - 94:18 promise [1] - 199:11 promoted [1] - 63:9 promoting [1] - 99:12 promotion [4] - 16:21, 95:25, 113:24, 114:2 promotional [6] -32:24, 46:17, 48:9, 76:23, 77:20, 160:6 promulgated [3] -9:14, 53:7, 62:16 promulgation [1] -42:3 propensity [1] - 82:23 proper [1] - 80:17 properly [1] - 63:17 proposed [3] - 5:8, 196:18, 196:21 prospective[1] -196:22 protect [1] - 56:10 provide [5] - 34:7, 34:23, 80:20, 137:7, 191:14 provided [9] - 32:12, 32:23, 36:5, 47:18, 70:23, 183:7, 185:10, 185:12, 195:22 provider [3] - 32:2, 45:5, 47:4

providers [12] - 31:25,22 32:8, 32:14, 33:21, 34:8, 34:17, 38:25, 52:6, 68:4, 168:15, 169:5, 193:25 providers' [3] - 169:7, 169:16. 171:2 providing [3] - 82:14, 121:8, 192:18 pseudoaddiction [2] -66:16, 66:21 Psychiatric [3] -53:17, 53:24, 54:21 psychiatric [4] -18:24, 117:9, 117:13, 166:12 psychiatrists [1] -176:22 psychiatry [2] - 19:18, 20:21 Psychiatry [2] - 17:12, 19.21 Public [1] - 94:13 public [4] - 32:11, 36:5, 94:17, 94:19 publication [21] -25:21, 35:7, 35:9, 42:9, 46:7, 46:12, 53:23, 64:9, 84:12, 86:2, 86:17, 96:9, 96:11, 104:15, 158:6, 191:12, 197:4, 197:7, 197:12, 197:22, 202:24 publications [9] -86:25, 87:6, 87:7, 87:11, 94:3, 96:9, 96:13, 97:11 publish [2] - 42:6, 87:6 published [21] - 26:8, 26:11, 26:18, 28:8, 31:8, 35:12, 43:12, 48:14, 67:15, 92:17, 92:24, 93:3, 94:22, 95:9, 97:16, 139:10, 156:20, 156:24, 197:23, 198:21, 202:6 pull [13] - 83:19, 88:15, 113:18, 114:13, 118:16, 121:12, 123:10, 133:22, 151:7, 151:10, 154:11, 185:2, 186:13 pulled [7] - 39:21, 40:24, 68:13, 101:18, 102:3,

	•		•	
103:12, 131:3	151:16	169:4	recipient [1] - 56:19	regarded [7] - 53:5, ²²
pullout [1] - 39:15	quantifies [3] -	rates [1] - 168:5	recitations [1] - 82:15	69:4, 87:5, 90:4,
Purdue [1] - 42:17	140:17, 150:2,	rather [3] - 26:7, 68:9,	recognize [2] - 127:4,	93:8, 104:14, 104:15
purely [2] - 46:21,	150:13	165:20	138:16	regarding [16] - 5:9,
137:21	quantify [6] - 139:4,	Re [1] - 3:9	recognized [1] - 21:21	36:12, 36:17, 37:16,
purple [1] - 85:3	144:19, 144:21,	RE [1] - 1:4	recommendation [3] -	76:21, 77:18, 95:20,
purport [1] - 77:2	148:23, 150:19,	reach [7] - 33:5,	40:12, 40:16, 161:20	97:12, 110:24,
purported [2] - 32:3,	192:4	43:14, 50:7, 86:12,	recommendations [1]	122:7, 125:14,
80:19	quantitative [2] -	166:12, 177:3,	- 40:10	132:3, 178:9, 182:2,
purpose [2] - 173:12,	121:7, 126:5	191:15	recommended [2] -	187:25, 189:12
173:21	quantities [1] - 47:7	reaching [9] - 31:7,	42:10, 191:25	regions [2] - 98:13,
purposes [7] - 5:12,	Quarry [1] - 12:19	31:9, 33:8, 37:5,	record [19] - 6:10,	116:2
6:12, 124:11,	QUESTION [2] -	59:5, 69:11, 69:25,	10:7, 12:18, 13:16,	register [1] - 61:4
126:21, 162:7,	116:5, 119:5	86:4, 96:15	17:19, 18:4, 18:14,	regression [2] -
172:14, 183:10	questions [28] - 13:2,	read [22] - 16:22,	25:16, 50:16, 58:11,	122:16, 122:20
pursued [1] - 76:11	13:16, 53:15, 70:15,	26:25, 29:2, 39:3,	61:24, 71:25, 106:4,	regularly [1] - 173:4
put [28] - 14:25, 15:10,	113:22, 114:8,	39:6, 40:9, 42:2,	106:7, 106:12,	regulation [1] - 187:17
38:10, 38:22, 39:10,	114:12, 114:14,	52:22, 84:22, 96:5,	108:22, 162:7,	regulations [1] -
44:16, 51:17, 55:2,	129:15, 132:3,	96:9, 96:11, 102:6,	179:19, 203:20	110:24
57:19, 62:21, 70:7,	151:20, 152:13,	103:19, 115:15,	records [5] - 124:8,	regulatory [6] - 149:4,
83:12, 83:17, 88:20,	162:15, 163:6,	115:16, 145:15,	125:22, 125:25,	150:12, 150:14,
90:8, 90:23, 94:6,	168:12, 174:2,	154:23, 155:6,	176:15, 183:19	153:4, 153:11,
94:10, 101:14,	175:3, 175:5,	193:17, 194:4, 199:4	red [1] - 199:17	153:23
102:25, 106:3,	181:10, 190:3,	readers [1] - 40:8	redirect [2] - 190:6,	rehabilitation [1] -
106:6, 113:14,	190:14, 190:18,	reading [4] - 28:19,	190:15	24:18
115:10, 118:21,	192:2, 192:10,	40:18, 76:19, 160:12	REDIRECT [1] - 190:8	reimbursement [3] -
123:4, 180:16,	192:22, 194:2,	reads [3] - 39:23,	reduce [2] - 23:17,	147:4, 150:20,
183:14	195:13, 195:14	52:10, 84:11	84:21	150:25
puts [1] - 84:4	queue [1] - 163:11	ready [2] - 109:7,	refer [3] - 115:9,	relate [6] - 30:13,
putting [2] - 129:17,	quick[1] - 151:9	112:13	160:3, 186:6	90:19, 184:12,
167:7	quickly [3] - 50:15,	real [4] - 54:17, 56:7,	reference [6] - 9:25,	184:15, 186:3,
Pyser [11] - 10:15,	66:12, 175:4	56:8, 87:22	101:11, 162:16,	199:25
10:19, 61:3, 71:19,	quite [2] - 56:25,	really [24] - 9:5, 16:6,	162:19, 163:13,	related [16] - 7:15,
109:10, 109:18,	163:9	21:8, 41:3, 55:15,	202:7	58:8, 62:15, 66:9,
151:24, 152:5,	quotation [1] - 94:11	55:17, 56:17, 60:23,	referenced [3] - 73:2,	79:24, 88:17, 95:20,
197:3, 201:12,	quotations [3] - 68:14,	60:24, 61:8, 66:23,	131:19, 162:25	96:21, 102:4,
202:19	94:10	68:21, 99:9, 102:13,	references [4] -	104:20, 105:5,
PYSER [18] - 10:18,	quote [8] - 94:23,	108:24, 116:3,	186:10, 186:14,	146:5, 146:15,
61:2, 61:18, 71:18,	94:25, 95:8, 95:11,	130:7, 137:12,	187:5, 197:24	146:19, 149:23,
109:14, 109:24,	101:22, 102:4,	137:23, 144:12,	referencing [4] -	194:2
151:23, 152:8,	198:23	162:4, 170:6, 202:7,	71:10, 77:7, 85:20,	relates [2] - 51:8, 69:8
152:11, 154:11,	quoted [1] - 84:16	202:24	198:16	relating [4] - 7:14,
162:21, 163:8,	quotes [4] - 68:17,	reasonable [3] - 15:7,	referred [5] - 100:13,	70:15, 93:16, 104:9
163:12, 165:6,	101:18, 103:4,	50:9, 187:15	138:4, 142:21,	relationship [12] -
172:7, 174:2, 174:5,	103:12	rebuttal [1] - 6:4	191:4, 200:13	24:3, 25:7, 29:10,
198:10	quoting [1] - 148:17	recalling [1] - 184:18	referring [4] - 71:12,	93:18, 93:24,
		receive [2] - 82:13,	71:22, 125:17,	157:19, 158:10,
Q	R	122:9	146:10	158:17, 191:16,
		received [16] - 4:20,	refers [3] - 18:24,	191:22, 201:15,
qualifications [1] -	radical [1] - 155:3	6:2, 7:12, 7:16, 7:24,	23:13, 25:16	203:4
15:6	raise [2] - 11:19, 12:12	20:5, 26:21, 27:23,	reflect [3] - 38:21,	relative [2] - 192:4,
qualify [1] - 40:14	raised [1] - 71:20	32:17, 34:9, 34:16,	38:23, 49:24	192:18
qualitative [6] -	rapidly [1] - 116:3	47:3, 81:17, 120:22,	reflected [1] - 38:9	relatively [2] - 84:19,
123:18, 130:20,	rare [7] - 45:17, 66:13,	121:5, 121:20	reflecting [1] - 147:22	92:4
131:18, 192:24,	67:4, 80:7, 87:18,	receiving [4] - 42:12,	reflective [2] - 40:7,	released [1] - 150:7
193:24, 194:10	90:4, 90:7	47:6, 82:15, 92:5	195:9	relevant [2] - 38:24,
quality [4] - 40:15,	rarely [3] - 63:15,	receptors [1] - 50:20	reflects [1] - 58:12	91:21
40:17, 41:2, 46:20	63:16, 64:2	recess [6] - 4:16, 78:2,	regard [8] - 10:14,	reliability [2] - 74:4,
quantified [3] -	rate [6] - 51:3, 51:4,	105:19, 105:21,	32:6, 56:3, 78:20,	81:5
147:13, 148:5,	51:5, 99:22, 168:14,	105:24, 174:8	81:2, 93:7	reliable [11] - 16:9,
	-			

47.4.50.0.00.40
47:4, 59:2, 69:10,
70:2, 73:15, 74:13,
86:12, 104:14,
104:16, 126:25
reliably [2] - 80:22,
87:6
reliance [1] - 96:18
relied [19] - 6:11,
69:24, 71:25, 80:15,
86:4, 87:11, 96:19,
96:23, 97:7, 107:10,
119:18, 119:24,
121:8, 123:20,
126:7, 132:6,
186:20, 193:19,
200:20
relief [3] - 8:16, 22:7,
66:20
relies [1] - 73:20
relieve [1] - 50:21
reluctant [2] - 55:20,
136:15
rely [10] - 5:16, 6:8,
6:20, 8:11, 48:16,
93:12, 96:12, 104:8,
108:6, 195:22
relying [3] - 70:11,
107:19, 178:15
remain [1] - 65:8
remainder [1] - 77:17
remained [1] - 115:22
remaining [1] - 77:16
remains [3] - 157:20,
158:12, 158:18
remedy [1] - 94:21
remember [4] - 87:18,
156:17, 192:24,
199:15
remind [5] - 78:5,
78:6, 106:5, 106:8,
123:6
remotely [1] - 12:2
removal [1] - 92:13
renewed [1] - 6:17
rep [3] - 33:25,
165:16, 200:18
repeat [3] - 116:20,
128:5, 130:9
repeats [1] - 41:19
rephrase [8] - 46:2,
61:25, 62:2, 132:22,
144:4, 176:24,
181:20, 196:11
report [75] - 8:8,
10:25, 11:6, 11:8,
11:9, 15:15, 15:20,
17:3, 72:3, 72:9,
80:22, 85:19, 94:12,
80:22, 85:19, 94:12, 94:22, 95:8, 101:19,

```
112:17, 112:18,
 112:22, 112:23,
 119:15, 119:21,
 119:25, 120:2,
 126:7, 126:10,
 154:21, 154:22,
 159:19, 159:21,
 159:22, 159:23,
 160:2, 163:18,
                           198:7
 163:24, 164:9,
 166:15, 167:21,
                           68:25
 168:13, 168:18,
 169:4, 175:7,
                           19:17
 179:10, 179:12,
 179:14, 179:19,
                            146:2
 179:24, 181:25,
 182:4, 183:11,
 183:14, 183:24,
 184:12, 184:25,
 185:18, 186:6,
 187:10, 187:12,
 187:14, 187:19,
 187:20, 187:24,
 188:9, 188:10,
 193:7, 193:9,
 193:12, 193:19,
 197:13, 198:16,
 198:18, 198:24,
 199:9
reported [2] - 118:7,
 118:13
Reporter [2] - 204:7,
 204:21
REPORTER [1] - 2:20
reports [5] - 72:10,
 72:11, 93:17, 94:11,
 119:2
represent [2] - 110:7,
 174:25
representation [1] -
 106:14
representations [4] -
 32:7, 75:15, 77:19,
 184:8
representative [5] -
 31:16, 31:20, 31:24,
 32:7, 46:23
representatives [3] -
 32:13, 33:21
representing[1] -
 155:2
reputable [1] - 69:5
requested [1] - 78:16
require [1] - 13:15
required [1] - 74:7
requirements [6] -
 73:12, 149:10,
 188:25, 191:13,
 191:24, 191:25
```

research [12] - 28:12,

```
29:19, 35:13, 38:20,
                             180:2, 180:20, 196:4
 52:7, 97:12, 121:6,
                           reviewed [34] - 25:14,
 130:18, 177:12,
 193:21, 193:23,
 196.18
researcher [3] - 31:11,
 33:10. 81:2
researchers [1] -
researching [1] -
residency [2] - 19:14,
                             191:12, 197:4,
                             197:13, 197:23
residents [2] - 29:6,
                             64:21, 82:16
respect [11] - 30:10,
 67:3, 67:5, 67:10,
 67:18, 75:16, 96:8,
 104:18, 153:12,
                           reward [1] - 50:24
 184:2, 192:5
respects [1] - 76:10
responded [1] -
                             121:3, 126:22
 202:15
                           Risk [1] - 84:11
response [2] - 6:17,
                           risk [36] - 30:14,
 195:23
responsibilities [3] -
 153:4, 153:11,
 153:23
responsibility [9] -
 147:12, 147:18,
 148:24, 150:2,
 150:14, 151:16,
 153:8, 173:19,
 180:18
rest [2] - 38:9, 156:11
restate [1] - 125:4
                             195:2, 195:10,
rests [1] - 165:21
                             195:12
result [8] - 53:8,
 74:13, 85:12, 90:15,
                           risk-benefit [2] -
                             30:14, 30:17
 142:8, 155:14,
 155:19, 166:18
                           risks [4] - 30:22,
                            82:16, 116:13,
resulted [3] - 16:18,
                             189:13
 57:14, 77:3
results [3] - 73:15,
                           road [1] - 14:21
 88:15, 196:4
                           role [4] - 29:23,
resume [1] - 105:22
retail [3] - 143:2,
                             188:5
 182:25, 185:6
                           roles [1] - 192:4
retained [2] - 111:19,
                           Roman [1] - 168:2
 111:23
                           rooms [1] - 85:13
return [1] - 171:10
                           rough [1] - 135:3
review [25] - 7:25,
 25:16, 25:22, 29:13,
 43:24, 44:11, 45:3,
 46:15, 48:13, 54:10,
                            204:20
 67:23, 67:24, 74:20,
                           rule [3] - 10:2, 71:2,
                             108:9
 81:9, 88:7, 124:7,
                           ruled [1] - 113:3
 125:21, 125:25,
 135:24, 145:14,
                           rules [6] - 8:14, 9:14,
 156:21, 156:25,
                             17:23, 107:16,
```

25:24, 33:3, 35:12, 37:7, 37:16, 37:19, 39:16, 42:6, 46:21, 56:24, 69:2, 69:13, 69:22. 80:4. 80:16. 81:7. 81:12. 86:11. 87:3, 90:19, 93:10, 94:4, 104:12, 129:4, 179:12, 183:19, 184:10, 184:23, reviewing [3] - 39:5, revoke[1] - 149:13 revoked [1] - 149:16 right-hand [1] - 95:11 rigorous [3] - 120:13, 30:17, 47:5, 56:5, 56:24, 57:6, 66:12, 80:12, 80:20, 83:13, 83:17, 84:5, 84:18, 84:20, 85:6, 85:10, 85:16, 86:5, 87:13, 87:22, 88:4, 88:17, 89:12, 89:22, 91:23, 116:18, 116:22, 116:25, 128:25, 168:23, 194:14, 194:19, 194:23, Road [2] - 1:21, 12:20 160:16, 160:17, roughly [1] - 105:10 **RPR** [3] - 2:20, 204:6,

224 108:6, 191:18 ruling [2] - 77:15, 77:22 run [1] - 139:17 runs [2] - 121:13, 131:2

S

Sabrina [6] - 7:7, 70:9, 76:15, 78:8, 110:6, 196.7 safe [3] - 128:4, 128:19, 195:21 safer [2] - 16:6, 60:23 safety [13] - 29:23, 30:2, 30:6, 30:13, 30:20, 30:24, 36:12, 47:10, 47:20, 48:10, 48:11, 160:10, 196:4 saga [1] - 192:5 **Saldana** [1] - 3:20 **SALDANA**[3] - 2:5, 3:20, 3:23 sale [1] - 83:5 sales [12] - 31:16, 31:20, 31:24, 32:7, 32:12, 32:13, 33:20, 33:25, 58:6, 58:12, 77:4, 111:15 **Salvatore** [1] - 4:2 SALVATORE[1] sandbag [1] - 107:23 sandbagged [2] -9:15, 107:17 sandbagging [4] -8:14, 11:14, 108:2, 108:10 save [1] - 13:13 **saving** [1] - 165:17 savings [3] - 164:6, 164:11, 164:15 saw [12] - 37:5, 46:16, 66:8, 96:25, 98:7, 100:6, 100:8, 119:13, 119:23, 121:4, 162:11 sbadala@napolilaw. com [1] - 1:24 scaled [1] - 95:2 **schedule** [1] - 4:25 **Schedule** [1] - 68:20 scheduled [1] - 7:20 schizophrenia [1] -117:16 scholarly [1] - 81:9 school [5] - 56:17, 56:18, 82:21, 83:2,

104:3

185:8, 185:9,

199:23

193:15, 198:21,

198:23, 199:20,

seeing [6] - 8:21,

89:7. 136:17

seeks [1] - 74:9

198:4

39:24

92:4

self-limiting [2] -

sends [1] - 25:19

sense [5] - 78:13,

169:12, 169:22

98:3, 165:23,

41:14, 44:25,

102:10, 201:17,

201:19, 201:23,

202:18, 203:4

4:15, 106:22,

162:25, 185:14

series [2] - 33:13,

serious [2] - 9:5,

served [2] - 101:25,

serves [1] - 42:15

setting [7] - 140:5,

178:5, 178:12,

severe [2] - 20:14,

severely[1] - 89:18

simply [5] - 6:10, 6:20,

share [1] - 181:21

178:17

192:23

100:22

177:17

36:25

56:10

199:2

163:24

78.4

sent [1] - 5:8

91:12, 92:4

School [3] - 14:13,
17:13, 19:4
Schools [1] - 94:12 Schroeder [2] - 92:8,
93:2
science [10] - 29:3,
49:10, 49:21, 64:3,
94:23, 95:20, 95:21,
194:25, 195:4, 203:7
Sciences [3] - 17:12,
19:22, 95:13
scientific [18] - 25:6,
25:18, 31:11, 33:10,
37:2, 37:7, 43:12,
46:7, 49:25, 50:9,
67:15, 80:8, 80:24,
103:21, 111:8, 113:11, 113:24,
187:16
scientifically [3] -
120:13, 121:2,
126:22
scientist [1] - 54:16 scope [2] - 77:9,
119:22
scores [2] - 22:14,
22:15
screen [15] - 4:9,
14:25, 44:19,
109:13, 109:19,
109:22, 115:10,
109:22, 115:10, 115:15, 121:14,
151:14, 153:20,
182:11, 182:18,
186:16, 186:21
scripts [1] - 35:18
second [14] - 7:6,
8:23, 10:24, 64:11,
72:23, 78:10, 92:23,
97:20, 102:9,
102:10, 103:21,
114:15, 165:6,
186:22
Second [1] - 73:5
Section [1] - 17:24
section [1] - 50:15
see [43] - 15:12, 26:5,
38:15, 39:12, 40:2,
42:14, 42:18, 44:19, 45:4, 48:2, 49:3,
59:23, 59:24, 59:25,
64:3, 80:9, 84:14,
84:24, 85:21, 88:24,
89:14, 99:3, 99:4,
103:6, 105:9,
109:12, 114:8,
135:23, 136:16,
144:5, 168:9, 173:6,
174:9, 182:18,
182:20, 183:5,

```
shared [3] - 83:22,
                             183:22, 186:21
                           shelves [1] - 172:11
                           SHERIDAN [2] - 1:17,
                            4:6
 39:20, 84:25, 85:14,
                           Sheridan [1] - 4:6
                           sheriff [3] - 161:23,
seek [2] - 75:3, 202:12
                             161:24, 162:2
                           shift [16] - 55:8, 55:15,
seem [3] - 44:9, 76:18,
                             55:18, 57:3, 98:10,
                             123:3, 155:3,
selected [2] - 26:25,
                             155:19, 158:21,
                             160:5, 168:16,
selecting [1] - 43:24
                             169:9, 169:23,
selective [1] - 194:10
                             170:5, 171:6, 200:19
self [3] - 23:25, 91:12,
                            shifted [2] - 155:9,
                             169:18
                           shifting [2] - 155:14,
                            170:14
                           shifts [1] - 172:10
                           Shkolnik [2] - 3:17,
                             108:5
                           SHKOLNIK [5] - 1:20,
                             3:17, 108:4, 108:21,
                             109:5
sentence [9] - 41:13,
                            shopping [8] - 140:21,
                             141:8, 141:10,
                             141:14, 141:17,
                             141:22, 142:8,
separate [2] - 94:10,
                             142:14
                           short [4] - 50:22, 76:4,
                             78:2, 174:8
separately [1] - 102:6
September [5] - 1:8,
                           short-term [1] - 50:22
                           shot [3] - 161:23,
                             161:25
                           show [6] - 63:15,
                             115:6, 122:5, 140:2,
                             163:15, 182:8
                           showed [5] - 28:13,
                             28:15, 177:4, 186:3,
                             194:25
                           showing [7] - 56:24,
service [2] - 4:18, 36:6
                             58:17, 58:21, 85:13,
                            91:9, 92:2, 96:19
serving [2] - 163:18,
                           shown [3] - 38:20,
                             58:4, 84:21
session [7] - 3:4, 4:13,
 5:3, 18:9, 73:8, 73:9,
                            shows [6] - 58:6, 85:4,
                             85:8, 85:9, 105:2,
set [5] - 74:7, 87:13,
                             105:4
 88:16, 134:3, 191:18
                            side [3] - 94:11, 95:11
                           signature [1] - 204:16
                           significance [1] - 89:8
 140:7, 177:6, 178:2,
                           significant [1] - 22:5
                           signs [2] - 45:6, 66:22
several [2] - 103:22,
                           similar [6] - 81:16,
                             82:19, 86:12, 89:23,
                             99:7, 141:5
                           SIMMONS [1] - 1:14
                           simple [1] - 169:17
```

```
8:22, 13:7, 66:19
single [6] - 47:3,
 103:25, 134:16,
 135:18, 164:5, 164:7
sit [4] - 21:11, 137:6.
 146:12, 163:14
sitting [4] - 108:19,
 136:24, 170:2, 188:8
skip [1] - 111:7
SKOLNICK [1] - 1:22
Slide [36] - 15:11,
 15:12, 37:6, 39:10,
 41:24, 44:16, 51:18,
 54:25, 57:20, 59:15,
 59:18, 62:20, 62:21,
 62:23, 66:4, 68:6,
 69:7, 70:7, 84:8,
 88:20, 88:23, 90:23,
 94:6, 101:14,
 102:25, 104:22,
 106:13, 113:18,
 123:4, 151:7, 186:3,
 186:10, 186:13,
 187:5, 198:17,
 199:13
slide [22] - 17:5,
 39:12. 43:22. 47:14.
 59:9, 60:6, 65:25,
 70:16, 84:10, 90:9,
 91:4, 94:9, 101:17,
 104:23, 105:8,
 106:18, 177:4,
 185:22, 190:11,
 197:17, 198:20,
 199:14
slides [1] - 90:25
slightly [3] - 53:18,
 75:7, 133:23
Slip [1] - 73:4
slow [2] - 51:3, 51:4
small [4] - 56:6, 65:8,
 82:5, 98:8
Smith [1] - 122:9
so-called [5] - 63:23.
 64:9, 64:25, 98:8,
 104:9
societies [2] - 160:8,
 161:9
Society [5] - 51:22,
 52:8, 52:25, 53:8,
 54:19
society [1] - 52:6
sold [1] - 137:13
solution [1] - 66:24
someone [4] - 41:5,
 89:2, 89:3, 103:5
sometimes [3] - 54:5,
 95:13, 142:23
somewhat [1] - 4:16
sorry [20] - 18:16,
```

```
22:5, 31:17, 54:13<sup>2</sup>, <sup>2</sup>
 54:14, 54:15, 70:5,
 78:6, 88:12, 109:5,
 116:20, 118:9,
 121:24, 125:4,
 132:20, 140:7,
 146:7, 163:8,
 179:11, 185:22
sort [8] - 22:8, 28:2,
 33:18, 53:2, 53:8,
 76:2, 146:16, 191:14
sorts [1] - 81:17
sought [2] - 13:4,
 13:10
sound [5] - 128:5,
 152:6, 152:9, 191:20
sounds [2] - 13:22,
 112:9
source [2] - 88:24,
 104:16
sources [4] - 16:18,
 175:6, 202:5, 202:13
speaking [3] - 34:22,
 35:8, 53:20
speaks [1] - 49:20
specialties [1] - 98:11
specialty [2] - 97:24,
 98:4
specific [48] - 23:5,
 61:12, 73:11, 96:13,
 100:3, 103:22,
 116:18, 116:22,
 119:14, 119:18,
 122:8, 129:23,
 130:14, 131:8,
 131:13, 132:8,
 133:2, 134:8, 137:7,
 138:24, 140:13,
 146:10, 148:8,
 151:18, 153:13,
 156:19, 158:13,
 167:11, 167:14,
 172:18, 172:22,
 175:18, 176:23,
 177:23, 178:21,
 180:21, 180:24,
 181:5, 184:5,
 184:18, 187:25,
 188:24, 189:17,
 189:18, 189:20,
 189:23, 190:2
specifically [8] -
 23:13, 89:10, 89:22,
 137:19, 144:11,
 151:16, 155:8,
 175:17
specificity [2] -
 122:12, 188:10
specifics [1] - 110:8
spent [2] - 82:9,
```

112:15, 113:14,

115:13, 151:19,

196:6, 196:10

strong [4] - 40:11,

106:3, 106:24,

192:22, 194:13,

Strong's [1] - 199:13

structural [1] - 112:21

students [7] - 21:16,

22:5, 29:5, 29:7,

studied [3] - 25:7,

176:14, 189:8

studies [5] - 56:23,

study [22] - 38:14,

89:21, 91:16,

101:20. 103:8.

103:25, 104:8,

104:11, 108:12,

170:3, 170:12,

180:11, 180:15,

stuff [2] - 41:17, 85:15

187:22, 199:9

subject [1] - 61:15

submit [1] - 112:18

submits [1] - 25:17

submitted [6] - 8:7,

112:17, 159:19

179:12, 179:13

103:23

198:6

subpopulations [1] -

subsequent [4] - 9:3,

184:10, 197:12,

subsequently [2] -

95:5, 100:22

subset [1] - 98:8

117:2, 117:4,

178:10, 184:13

substances [11] -

52:15, 52:16,

152:21, 152:25,

substance [11] - 17:2,

18:25, 23:24, 27:6,

28:3, 48:17, 83:16,

27:8, 27:20, 52:14,

11:12, 70:12, 112:3,

submitting [3] - 164:9,

171:4, 180:6,

39:7, 80:2, 89:9,

63:15, 69:14, 102:21

29:8, 104:3

strongly [2] - 42:9,

196:7, 199:22,

200:13

101:5

40:16, 68:9, 195:8

Strong [18] - 7:8, 70:9,

70:20, 70:25, 76:14,

76:16, 78:9, 105:16,

109:9, 110:6, 192:3,

114:10 sphere [1] - 33:11 sprain [1] - 92:3 **Square** [1] - 2:9 stand [2] - 13:6, 161:25 standard [3] - 28:21, 28:24, 43:13 **standards** [1] - 42:5 standing [2] - 10:12, 11:22 Stanford [11] - 12:20, 14:12, 17:13, 19:4, 19:12, 19:15, 19:18, 21:16, 24:22, 28:22, start [6] - 5:4, 14:24, 50:16, 105:20, 152:12, 175:8 started [2] - 4:11, 105:17 starting [6] - 16:2, 55:3, 105:18, 136:10, 171:16, 189:16 State [39] - 2:3, 2:3, 3:2, 29:24, 34:14, 59:13, 59:19, 60:3, 99:23, 100:9, 102:23, 104:18, 104:20, 105:7, 105:11, 111:20, 123:15, 123:19, 124:3, 129:24, 130:15, 130:22, 138:25, 147:2, 149:21, 150:8, 156:10, 159:19, 159:22, 159:23, 160:9, 161:14, 166:25, 167:9, 167:18, 172:14, 172:23, 177:21, 204:7 state [12] - 12:17, 13:9, 19:25, 29:17, 38:21, 50:8, 51:11, 55:2, 72:8, 102:10, 108:17, 146:25 **STATE**[1] - 1:2 state's [1] - 141:23 statement [13] - 40:7, 64:23, 68:9, 80:6, 80:9, 85:21, 136:15, 153:7, 158:7, 168:12, 187:6, 201:13, 201:14 statements [11] -32:11, 47:20, 47:25, 48:2, 77:19, 79:23,

80:2, 186:4, 186:5, 186:11, 186:14 states [1] - 36:17 States [8] - 33:22, 34:23. 46:25. 75:22. 97:22, 98:15, 155:5, static [2] - 8:25, 128:12 **statistical** [1] - 111:12 **Statistical** [2] - 24:7, 53:21 statistics [3] - 88:3, 99:21, 178:16 stay [4] - 10:7, 11:17, 29:3, 172:10 staying [1] - 51:13 stem [1] - 51:2 stenographer [1] -65:15 stenographic [2] -13:16, 204:10 **step** [3] - 74:15, 74:16, 109:16 **STEPHANIE** [2] - 2:20, 204:20 Stephanie [1] - 204:6 steps [4] - 33:13, 36:25, 96:14, 139:4 Steve [1] - 10:19 Steven [3] - 61:2, 71:18, 151:23 steward [1] - 153:8 **still** [11] - 78:7, 91:13, 91:17, 92:6, 106:9, 133:17, 164:18, 164:22, 170:23, 174:13, 174:17 stimulate [1] - 50:23 Stipulation [3] - 5:8, 72:17, 72:18 stolen [1] - 142:24 stop [2] - 13:23, 23:18 strange [1] - 40:15 stream [1] - 17:23 streamed [1] - 18:6 Street [1] - 2:4 street [2] - 13:6, 13:8 strike [2] - 11:15, 53:5 **STRONG** [32] - 7:7, 7:12, 9:7, 10:8, 11:23, 45:18, 45:21, 70:8, 71:9, 76:13, 76:15, 77:25, 78:8, 78:12, 79:9, 79:15, 105:20. 105:23. 107:6. 107:24. 109:10, 109:15, 109:17, 110:3, 112:9, 112:13,

153:5, 153:12, 153:24, 180:12 Substances [1] -153:6 **substantial** [1] - 67:24 substantially [1] -96:3 substantive [1] -45:24 substantively [1] -15:19 subtitle [2] - 60:15, 62:11 successful [1] - 52:20 suffering [2] - 58:21, 124:25 suffers [1] - 125:9 **SUFFOLK** [1] - 1:2 Suffolk [30] - 1:15, 3:3, 3:12, 3:14, 4:6, 99:23, 100:11, 111:21, 117:24, 118:2, 124:11, 124:22, 137:18, 167:12, 167:15, 172:18, 175:11, 175:22, 175:23, 176:2, 177:20, 178:22, 180:8, 180:13, 184:16, 187:18, 187:23, 188:2, 189:13, 204:8 suggest [4] - 11:17, 13:2, 72:16, 108:14 suggested [2] - 73:7, 193:8 suggestion [3] -74:24, 191:11, 193:5 suggestive [1] -196:14 suggests [2] - 101:23, 198:24 Suite [1] - 1:21 sum [2] - 16:25, 83:15 summarizes [1] -38:17 summary [7] - 6:12, 6:18, 37:25, 38:9, 38:18, 171:12, 171:14 **summative**[1] - 38:23 superficial [1] -165:23 supplemental [6] -7:19, 7:23, 70:14, 70:22, 159:21, 185:18 supplemented [2] -108:16, 183:13

supplied [1] - 145:6

226 **supply** [15] - 16:3, 16:10, 16:12, 16:15, 16:17, 55:4, 75:12, 93:19, 93:24, 95:2, 144:25, 152:18, 153:8, 171:17, 172:4 support [7] - 34:8, 45:15, 49:4, 56:21, 101:11, 107:11, 129:6 supported [2] - 38:10, 65:2 **supportive** [1] - 85:20 **supposed** [1] - 64:18 **sUPREME**[1] - 1:2 Supreme [2] - 1:12, 3:2 surgery [2] - 91:10, 92:20 surprised [1] - 9:16 surrounding [1] - 52:4 survey [13] - 120:7, 120:11, 120:13, 120:14, 120:19, 121:2, 121:3, 121:18, 121:22, 122:5, 122:11, 126:22, 191:19 surveyed [2] - 122:6, 126:21 **surveys**[3] - 191:15, 192:22, 194:8 suspicious [4] -152:24, 153:9, 154:5, 154:15 sustain [2] - 77:22, 196:11 swear [1] - 12:8 switch [1] - 181:13 sworn [2] - 12:15, 183:16 **symptoms** [1] - 66:22 synonymous[1] -24:9 Т

talks [1] - 35:5
target [1] - 36:14
taught [4] - 56:4,
56:12, 82:21, 82:22
teach [2] - 21:15, 29:4
teaches [1] - 46:12
teaching [1] - 21:22
team [1] - 70:21
tech [1] - 7:4
technical [2] - 24:2,
185:24
telecasting [1] - 18:2
ten [2] - 99:5, 163:6

tends [1] - 6:8
term [29] - 20:13,
22:22, 23:11, 23:20,
23:21, 24:3, 30:2,
30:3, 49:13, 50:22,
53:25, 61:8, 61:19,
64:2, 69:15, 84:22,
89:17, 101:8,
126:25, 156:2,
197:3, 197:6,
197:13, 197:19,
197:20, 198:6,
198:22
terminology [1] - 24:7
terms [18] - 19:7,
22:18, 23:8, 48:9,
49:9, 49:11, 50:14,
67:2, 77:10, 100:10,
102:11, 107:25,
108:2, 126:21,
132:9, 185:21,
188:8, 188:23
testified [14] - 11:4,
12:16, 36:11, 36:23,
39:10, 125:20,
132:7, 132:11,
134:18, 171:23,
175:16, 192:9,
192:21, 197:6
testify [6] - 7:20, 15:2,
75:19, 76:21,
136:25, 188:5
testifying [4] - 11:7,
61:14, 111:18,
183:25
testimony [29] - 6:8,
8:10, 40:5, 54:5,
61:11, 61:22, 74:12,
115:7, 116:9,
118:18, 119:9,
122:13. 126:17.
-, - ,
131:15, 135:22,
145:17, 154:2, 154:17, 159:14,
154:17, 159:14,
159:15, 159:18,
171:25, 180:2,
183:7, 183:16,
185:10, 185:12,
185:16, 186:9
Testimony [1] - 1:10
testing [2] - 112:12,
195:17
Teva[1] - 133:6
Thanksgiving [1] -
198:15
THE [125] - 1:2, 3:2,
3:6, 3:8, 3:16, 3:19,
3:22, 3:24, 4:3, 4:8,
4:24, 5:23, 6:2, 6:23,
7:4, 7:11, 9:23,
, , ,,

```
11:16, 11:24, 12:3,
                           thereof [1] - 18:7
 12:8, 12:10, 12:12,
                           they've [1] - 8:17
 12:17, 12:19, 12:21,
                           third [5] - 35:25,
 12:22, 13:25, 14:2,
                             40:23, 114:4, 114:6,
 17:17, 17:21, 41:4,
                             147.5
 41:7, 41:9, 42:20,
                           third-party [1] - 147:5
 42:24, 45:19, 46:2,
                           THOMAS[1] - 1:17
 57:16, 57:18, 61:13,
                           thorough [1] - 88:7
 61:23, 62:2, 65:15,
                           thousand [3] - 45:11,
 65:18, 70:18, 70:25,
                             191:19, 194:9
 72:15, 75:11, 76:3,
                           thousands [1] - 48:25
 76:14, 77:14, 78:3,
                           three [10] - 43:8, 57:8,
 78:5, 78:6, 78:10,
                             58:5. 85:21. 86:10.
 78:21, 79:8, 79:10,
                             87:10. 92:16. 93:6.
 91:2, 98:18, 98:20,
                             115:22, 181:10
 99:13, 105:15,
                           three-year [1] - 43:8
 105:16, 105:22,
                           throughout [5] - 31:8,
 106:5, 106:8,
                             34:22, 41:19, 75:21,
 106:10, 106:24,
                             168:4
 107:22, 108:19,
                           timeframe [1] - 104:21
 108:25, 109:7,
                           tired [1] - 65:16
 109:8, 109:9,
                           titled [2] - 59:18, 91:4
 109:16, 109:22,
                           titles [1] - 18:19
 112:7, 112:11,
                           tobacco [1] - 27:16
 112:14, 115:12,
                           today [20] - 4:25, 8:13,
 132:19, 132:20,
                             14:22, 27:3, 35:3,
 151:22, 152:3,
                             40:5, 46:25, 79:4,
 152:5, 161:18,
                             107:15, 109:20,
 162:8, 162:10,
                             111:18, 136:24,
 162:24, 163:4,
                             137:6, 170:2, 175:6,
 163:10, 163:14,
                             177:4, 182:10,
 171:7, 171:9, 174:4,
                             185:14, 186:3, 188:8
 174:6, 174:9,
                           toes [2] - 10:7, 11:17
 174:12, 174:13,
                           together [6] - 21:5,
 174:15, 174:16,
                             67:25, 88:15, 94:20,
 174:18, 174:19,
                             95:19, 113:15
 176:5, 176:7,
                           tom [1] - 4:6
 181:19, 182:12,
                           Tomarken [1] - 5:4
 182:17, 186:16,
                           tomorrow [1] - 5:2
 186:19, 186:23,
                           took [2] - 147:22,
 190:5, 190:6, 196:9,
                             194:13
 196:11, 196:14,
                           tool [1] - 122:21
 198:12, 200:9,
                           tooth [1] - 92:12
 203:14, 203:16,
                           top [5] - 26:25, 58:12,
 203:17, 203:18,
                             103:13, 167:25,
 203:19
                             193:14
theft [2] - 144:8,
                           topic [7] - 167:3,
 144:11
                             175:9, 177:15,
thefts [3] - 143:21,
                             179:5, 185:19,
 143:25, 144:14
                             188:13, 189:8
themselves [5] - 6:11,
                           tops [3] - 79:7, 79:11,
 40:19, 88:15,
                             79:12
 140:24, 166:8
                           total [4] - 86:10,
therapy [6] - 39:23,
                             133:13, 133:16,
 39:24, 40:12, 41:14,
                             134:3
 69:15, 126:25
                           totality [2] - 9:19,
thereafter [2] - 4:17,
                             129:3
 15:5
                           touchstone [1] - 49:11
thereat [1] - 83:10
                           toward [1] - 167:25
Therefore [1] - 204:15
                           towards [1] - 158:22
```

```
town [1] - 13:8
track [1] - 70:6
traditionally [1] - 4:17
trained [1] - 56:3
training [19] - 21:9,
 29:6, 56:19, 110:9,
 110:12, 111:3,
 111:15, 152:17,
 152:20, 152:23,
 153:3, 153:13,
 153:14, 153:22,
 188:24, 189:4,
 189:7, 192:13,
 193:20
trajectories [1] -
 103:18
transcript [5] - 121:25,
 139:24, 154:12,
 182:19, 204:13
transcription [1] -
 204:10
transcripts [1] -
 115:14
transit [2] - 142:25,
 143:5
transition [1] - 95:4
trauma [1] - 117:7
traveled [1] - 117:18
treat [3] - 25:3, 27:5,
 52.6
treatable [1] - 52:10
treated [4] - 22:11,
 27:23, 80:12, 102:19
treating [4] - 22:12,
 48:17, 66:14, 67:6
treatment [22] - 24:11,
 24:15, 40:13, 40:16,
 40:21, 42:10, 47:11,
 52:19, 56:13, 56:17,
 58:10, 58:21, 69:16,
 96:21, 129:6,
 148:11, 155:3,
 155:10, 155:15,
 156:7, 165:2, 165:10
tremendous[1] - 95:2
trends [3] - 100:5,
 100:7, 100:9
trial [10] - 15:3, 72:22,
 73:19, 74:17, 76:12,
 108:15, 183:25,
 187:25, 189:12,
 190:20
trials [2] - 29:24,
 69:14
tried [5] - 49:8, 88:15,
 142:6, 144:19,
 157:14
trouble [1] - 185:23
true [99] - 8:22, 17:3,
 17:4, 17:14, 18:21,
```

```
18:25, 19:2, 19:15<sup>2</sup>
 19:22, 20:7, 20:17,
 20:19, 20:24, 21:13,
 21:23, 22:2, 22:8,
 24:16, 24:23, 26:2,
 26:12, 26:16, 26:19,
 27:3, 27:6, 27:10,
 27:14, 27:20, 28:3,
 28:6, 30:4, 30:7,
 30:11, 32:19, 32:25,
 34:10, 34:14, 34:24,
 35:15, 38:21, 41:16,
 42:4, 44:22, 45:12,
 45:17, 47:21, 51:15,
 52:4, 53:19, 54:2,
 54:5, 55:9, 58:22,
 58:23, 59:20, 63:14,
 64:22, 65:5, 65:10,
 66:2, 80:10, 100:11,
 100:15, 103:10,
 117:24, 127:12,
 127:14, 127:16,
 133:4, 137:8,
 137:12, 140:4,
 140:15, 159:16,
 159:17, 172:9,
 173:17, 181:16,
 183:9, 183:10,
 183:16, 183:23,
 184:3, 186:5, 187:7,
 187:10, 187:12,
 187:13, 188:11,
 188:12, 190:23,
 194:6, 195:18,
 195:19, 197:10,
 197:11, 204:9,
 204:14
trusted [1] - 148:2
truth [2] - 33:6, 171:25
truthful [1] - 87:8
truthfully [1] - 184:6
try [12] - 10:13, 81:14,
 87:21, 94:20, 97:22,
 119:12, 120:8,
 120:20, 121:3,
 122:21, 144:4,
 162:13
trying [8] - 88:3,
 107:7, 130:7,
 136:12, 171:22,
 182:15, 196:8,
 196:25
tsheridan@
 simmonsfirm.com
 [1] - 1:19
turn [8] - 35:11, 36:19,
 110:8, 121:11,
 130:24, 142:17,
 167:23, 193:12
turning [4] - 118:20,
```

123:12, 145:2, 202:4 twice [2] - 6:23, 7:5 two [28] - 18:21, 21:22, 30:6, 30:9, 57:8, 67:22, 68:13, 73:11, 74:3, 74:22, 75:2, 78:16, 85:2, 85:19, 85:20, 86:25, 88:24, 94:10, 96:8, 97:9, 103:12, 175:14, 177:17, 189:17, 203:3, 203:8 two-year [1] - 203:8 **type** [3] - 92:6, 143:8, 144:19 types [3] - 46:23, 98:4, 107:25 typically [1] - 21:10

U

U.S[1] - 202:13 ultimate [2] - 165:20, 191:23 unclear [6] - 61:21, 157:21, 158:12, 158:19, 201:16, 203:5 unconscious [1] -85:13 under [17] - 20:9, 35:14, 35:23, 42:14, 62:25, 75:25, 78:7, 106:9, 154:2, 154:17, 159:14, 174:13, 174:17, 183:7, 185:11, 188:4, 191:7 undergraduate [1] undergraduates [1] -29:5 underlies [2] - 36:20, 48:22 underlying [2] - 65:6, 107:8 understood [2] -162:14, 189:13 undertaken [1] - 33:18 unfavorable [1] -57:15 unintended [1] - 30:22 United [8] - 33:22, 34:23, 46:25, 75:22, 97:21, 98:15, 155:4, 168:4 universal [1] - 161:20 universities [1] -94:19

university [1] - 19:9

University [5] - 14:13, 17:13, 19:4, 19:12, 28:22 unless [4] - 18:9, 65:5, 169:13, 177:15 unnecessary [6] -129:25, 130:16, 131:11, 132:15, 132:25, 166:19 unreasonably [1] -189:18 unrelated [1] - 184:11 **up** [61] - 14:25, 15:10, 26:4, 26:7, 29:3, 39:10, 44:16, 51:17, 52:9, 55:2, 56:14, 57:20, 62:21, 65:20, 70:7, 82:5, 85:13, 88:3, 88:20, 90:23, 94:6, 101:14, 102:25, 108:7, 109:19, 113:18, 115:10, 118:16, 118:21, 120:23, 121:13, 122:4, 123:4, 125:23, 126:22, 131:3, 133:22, 140:2, 151:7, 151:10, 151:14, 151:24, 153:20, 154:11, 156:16, 157:4, 158:5, 162:13, 162:23, 164:5, 171:13, 174:19, 175:8, 179:5, 182:19. 185:2. 186:13. 187:2. 188:16, 193:14 update [1] - 185:19 upshot [1] - 29:22 uptick [1] - 98:16 users [2] - 103:9, 145:11 uses [2] - 53:24, 53:25 usual [1] - 46:6 utilized [2] - 108:15, 176:20

V

vague [2] - 61:6, 61:19 valid [1] - 87:7 value [1] - 196:3 variation [2] - 114:23, 115:24 various [4] - 32:18, 34:17, 184:9, 199:14 varying [1] - 200:8 vast [2] - 136:2, 136:6 vastly[1] - 97:2 version [1] - 76:5 versus [2] - 73:3, 102:11 via [2] - 103:14, 104:5 Video [1] - 112:6 videotapes [1] - 17:25 view [1] - 139:11 views [1] - 44:2 Vinnie [3] - 161:21, 162:12, 163:12 violated [1] - 187:16 Virginia [11] - 8:20, 9:9, 10:21, 10:23, 10:25, 11:5, 11:9, 70:24, 71:11, 71:20, 107:3 virtually [1] - 37:21 voices [1] - 82:18 volume [2] - 97:25, 128:10 volunteer [2] - 13:7, 79:6 vote [2] - 21:5, 21:8 Vowles [2] - 89:2, 89:14

W wait [2] - 13:19, 78:10

waiver [1] - 20:5

walk [1] - 54:14

Walmart [8] - 174:25,

180:10, 180:11, 180:16, 180:20, 180:25, 181:6 wants [1] - 65:22 War [1] - 55:25 Washington [1] -36:12 watch [1] - 161:21 ways [1] - 155:9 weak [1] - 42:11 weeks [1] - 115:22 weigh [2] - 95:19, 116:12 weighed [1] - 168:19 weight [3] - 109:2, 109:3. 109:4 WELCH [4] - 5:6, 5:25, 6:9, 7:2 Welch [1] - 5:6 welcome [3] - 151:22, 174:11, 190:5 well-accepted [1] -53:3 well-intentioned [1] -188:18 well-known [1] - 86:20 West [11] - 8:20, 9:8,

White [2] - 36:7, 36:13 whole [8] - 5:16, 5:17, 38:2, 75:14, 93:20, 96:9, 96:11, 200:19 wholesale [2] - 98:10, 152:15 widespread [2] -191:14, 195:17 wisdom [1] - 92:12 wish [2] - 27:2, 106:17 withdrawal [2] - 5:9, 23:19 withdrawing [2] -6:13, 6:14 withdrawn [4] - 5:12, 6:21, 90:11, 191:11 WITNESS [19] - 12:19, 13:25, 41:7, 57:18, 98:20, 105:15, 106:10, 109:8, 132:20, 151:22, 152:5, 162:8, 174:12, 174:15, 174:18, 176:7, 190:5, 203:16, 203:18 witness [21] - 6:4, 7:6, 11:4, 11:17, 11:24, 12:8, 13:5, 72:7, 74:21, 75:4, 75:18, 76:7, 76:8, 78:5, 79:3, 106:6, 157:4, 161:21, 174:10, 181:22, 200:9 witness' [1] - 76:11 witnesses [4] - 12:23. 74:6, 78:15, 180:3 women [2] - 92:14, 104:4 word [3] - 13:22, 31:18, 63:16 words [3] - 5:23, 40:14, 195:7 world [2] - 30:7, 83:23 worried [1] - 162:9 worse [2] - 65:6, 150:9 worth [2] - 40:25, 108:23 worthy [1] - 25:21 write [5] - 114:2, 158:16, 169:16,

169:20, 199:6

writing [5] - 32:5,

36:24, 135:4, 135:6,

10:21, 10:23, 10:25,

11:5, 11:9, 70:24,

WHEREUPON [4] -

174:8

71:10, 71:19, 107:3

12:14, 78:2, 105:24,

228 147:21 written [27] - 25:13, 25:25, 28:20, 29:12, 35:18, 37:8, 55:7, 72:9, 80:24, 97:7, 105:11, 129:24, 130:15. 131:9. 133:14. 135:2. 135:9, 137:2, 137:5, 164:23, 173:10, 173:11, 173:16, 199:15, 202:19, 202:21 wrote [11] - 95:22, 97:16, 100:13, 154:23, 157:5, 160:3, 173:12, 193:18, 199:8, 201:19, 203:4

Υ

Yale [1] - 19:9 year [16] - 36:3, 43:8, 73:6, 82:25, 91:14, 91:18, 92:6, 92:11, 92:14, 106:23, 197:21, 198:22, 202:22, 203:8 years [11] - 14:18, 21:19, 22:11, 22:14, 25:5, 49:2, 54:12, 64:22, 82:9, 193:20, 203:3 yellow [1] - 85:9 yesterday [4] - 7:12, 7:17, 7:24, 70:13 YORK [1] - 1:2 York [113] - 1:8, 1:16, 1:22, 2:3, 2:3, 2:4, 2:9, 3:3, 3:21, 9:13, 26:24, 28:10, 28:13, 28:15, 34:14, 55:5, 59:13, 59:19, 60:3, 72:4, 73:4, 99:23, 100:8, 100:9, 102:23, 103:9, 104:18, 104:21, 105:7, 105:11, 108:6, 108:9, 108:18, 111:20, 115:19, 117:18, 117:19, 118:5, 118:11, 119:3, 119:7, 119:13, 120:8, 120:15, 120:20, 120:21, 121:4, 121:10, 121:18, 121:20, 122:6, 123:15, 123:19, 123:21,

123:24, 124:3, 124:25, 125:9, 125:13, 126:20, 129:25, 130:15, 130:21, 131:9, 134:6, 137:18, 138:21, 138:25, 141:19, 142:15, 143:10, 144:20, 145:12, 145:23, 146:2, 146:6, 146:15, 146:19, 148:7, 149:5, 149:12, 149:22, 150:3, 150:9, 150:21, 154:9, 156:11, 159:7, 159:19, 159:22, 159:23, 166:25, 167:9, 167:18, 171:18, 172:14, 172:23, 173:11, 177:20, 179:15, 182:9, 183:22, 184:11, 185:16, 187:10, 188:25, 189:5, 193:10, 204:8 York's [1] - 142:2 **young** [1] - 92:9 yourself [4] - 28:20, 29:12, 43:13, 48:15

Z

ZIP [1] - 13:9

229